Adapting a psychosocial intervention

to reduce HIV risk among likely adolescent participants

in HIV biomedical trials

Submitted by

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Declaration

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This dissertation includes two original papers (see Appendices Q and R) published in peer-reviewed journals. The development and writing of the published papers were the principal responsibility of myself and, for each of the cases where this is not the case, a declaration is included in the dissertation indicating the nature and extent of the contribution of co-authors.

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Abstract

In 2010, young people aged 15–24 years accounted for 42% of new HIV infections globally. In 2009, about five million (10%) of the total South African population was estimated to be aged 15–19 years. Current South African national sero-prevalence data estimate the prevalence of HIV to be 5.6% and 0.7% among adolescent girls and boys aged 15–19 years, respectively. HIV infections are mainly transmitted via sexual transmission. Adolescent sexuality is multi-faceted and influenced at multiple levels. In preparing to enroll adolescents in future biomedical HIV prevention trials, particularly prophylactic HIV vaccine trials, it is critical to provide counseling services appropriate to their needs. At the time of writing, there was no developed psychosocial intervention in South Africa for use among adolescent vaccine trial participants.

Thus, the aim of the present study is to adapt and pilot-test a psychosocial intervention, namely, the Centers for Disease Control and Prevention (CDC) risk reduction counseling intervention of Project Respect, an intervention tasked at being developmentally and contextually appropriate among potential adolescent participants in HIV biomedical trials in the future. To achieve this overall aim, I qualitatively explored adolescent sexuality and risk factors for HIV among a diverse sample of participants aged 16–18 from Soweto. Thereafter, I developed a composite HIV risk scale in order to measure the variance in HIV risk among the sample of adolescents studied.

The study followed a two-phased, mixed method research design and was informed by ecological systems theory and integrative model of behavioral prediction. The aim of Phase 1, split into phases 1a and b, was to conduct focus group discussions (FGDs) and to undertake a cross-sectional survey, respectively, to determine psychological (for example, self-esteem and depression), behavioral (specifically, sexual behavior) and social (specifically, social support, parent-adolescent communication) contexts that placed adolescents at risk for HIV infection. Phase 1a was qualitative,

with data collected via nine FGDs: three involved parents of adolescents, four involved adolescents aged 16–18 years and two counselors. Nine key themes related to adolescent sexuality and risks for HIV acquisition were identified, namely: (1) dating during adolescence; (2) adolescent girls dating older men; (3) condom use amongst adolescents; (4) teenage pregnancies; (5) views about homosexuality; (6) parent-adolescent communication about sexual health; (7) the role of the media; (8) discipline and perceived government influence; and (9) group sex events. Phase 1b was quantitative and the data were collected via a cross-sectional survey to investigate the variance of risk for HIV. For Phase 1b, the sample consisted of 506 adolescents with a mean age of 17 years (interquartile range [*IQR*]: 16–18). More than half the participants were female (59%, $n = 298$). I used a three-step hierarchical multiple regression model to investigate the variance in risk for HIV. In step 3, the only significant predictors were "ever threatened to have sex" and "ever forced to have sex", the combination of which explained 14% ($R^2 = 0.14$; $F\ (12, 236) = 3.14$, $p = 0.00$). Depression and parent-adolescent communication were added to steps 2 and 3, respectively, with both variables insignificant in these models.

In Phase 2, I adapted and pilot tested the CDC risk reduction counseling intervention. The intervention was intended to be developmentally and contextually appropriate among adolescents from Soweto aged 16–18 years, viewed as potential participants in future HIV biomedical trials. Participants in Phase 2 were aged 16–18 years; the sample was mainly female (52%, $n = 11$) and most (91%, $n = 19$) were secondary school learners in grades 8 to 12. Participants provided feedback about their experiences of the adapted counseling intervention through in-depth interviews. I identified three main themes in this regard, namely: benefits of HIV testing services, reasons for seeking counseling and HIV testing services, and participants' evaluation of the study visits and counseling sessions. The adapted CDC risk reduction counseling intervention was found to be acceptable with favorable outcomes for those adolescents who participated in the piloting phase.

This study adds to the literature on risks for HIV among adolescents in Soweto, South Africa, by considering multiple levels of influence. Reaching a more complete understanding of ecological factors contributing to sexual risk behaviors among adolescents in the pilot-study enabled the development of a tailored counseling intervention. The findings showed the adapted CDC risk reduction counseling intervention to be feasible and acceptable among adolescents likely to be participants and eligible to participate in future HIV biomedical prevention trials. Thus, this study provides a much needed risk reduction counseling intervention that can be used among adolescents, an age group likely to participate in future HIV vaccine prevention research.

Opsomming

In 2010 het jongmense tussen die ouderdomme van 15 en 24 jaar 42% van nuwe MIV-infeksies wêreldwyd uitgemaak. In 2009 was omtrent 5 miljoen mense (10%) van die Suid-Afrikaanse bevolking tussen 15 en 19 jaar oud. Volgens data oor die huidige Suid-Afrikaanse nasionale sero-voorkoms, word die voorkoms van MIV onderskeidelik op 5.6% en 0.7% onder tienermeisies en -seuns tussen die ouderdomme van 15 tot 19 jaar beraam. MIV-infeksies word hoofsaaklik deur seks oorgedra. Adolessente seksualiteit het baie fasette en word op verskeie vlakke beïnvloed. Ter voorbereiding van die werwing van adolessente vir toekomstige biomediese proewe, veral proewe oor profilaktiese MIV-entstowwe, is dit van kritiese belang dat beradingsdienste verskaf word wat geskik is vir hul behoeftes. Op die tydstip wat hierdie tesis geskryf is, het daar nog geen psigososiale intervensie in Suid-Afrika bestaan vir gebruik onder adolessente deelnemers aan entstofproewe nie.

Daarom is die doel van hierdie studie om ’n psigososiale intervensie – die Centers for Disease Control and Prevention (CDC) se Projek Respek, ’n beradingsintervensie vir die vermindering van risiko – aan te pas en met ’n loodsprojek te toets. Hierdie intervensie is geskik vir die ontwikkelings- en kontekstuele vlak van adolessente deelnemers aan toekomstige MIV- biomediese proewe. Ten einde hierdie oorkoepelende doelwit te bereik, het ek adolessente seksualiteit en die risikofaktore vir MIV onder ’n diverse steekproef deelnemers tussen die ouderdomme van 16 en 18 jaar van Soweto kwalitatief ondersoek. Daarna het ek ’n saamgestelde MIV-risikoskaal ontwikkel om die variansie van MIV-risiko onder die groep adolessente te meet.

Die studie se navorsingsontwerp het uit twee fases en gemengde metodes bestaan, en is gebaseer op ekologiesestelsel-teorie en die integrerende gedragsvoorspellingsmodel. Die doel van fase 1, wat in fases 1a en 1b verdeel is, was om onderskeidelik fokusgroepbesprekings te hou en om ’n deursnitopname te doen om die sielkundige kontekste (byvoorbeeld elemente van selfbeeld en

depressie), gedragskontekste (spesifiek seksuele gedrag) en sosiale kontekste (spesifiek sosiale ondersteuning en ouer-adolessent-kommunikasie) te bepaal waarin adolessente die risiko loop om MIV-infeksie op te doen. Fase 1a was kwalitatief en data is deur middel van nege fokusgroepbesprekings ingesamel: drie met die ouers van adolessente, vier met adolessente tussen 16 en 18 jaar oud en twee met beraders. Nege sleuteltemas is geïdentifiseer wat verband hou met adolessente seksualiteit en risiko's om MIV op te doen: (1) verhoudings tydens adolessensie, (2) tienermeisies wat verhoudings met ouer mans het, (3) die gebruik van kondome onder adolessente, (4) tienerswangerskappe, (5) sienings oor homoseksualiteit, (6) ouer-adolessent-kommunikasie oor seksuele gesondheid, (7) die rol van die media, (8) dissipline en die ervaarde regeringsinvloed en (9) groepseksgeleenthede. Fase 1b was kwantitatief en data is deur middel van 'n deursnitopname ingesamel om die variansie van risiko vir MIV te ondersoek. Vir Fase 1b het die steekproef bestaan uit 506 adolessente met 'n gemiddelde ouderdom van 17 jaar (interkwartielwydte [*IKW*]: 16–18). Meer as die helfte van die deelnemers was vroulik (59%, $n = 298$). Ek het 'n hiërargiese meervoudige regressiemodel met drie stappe gebruik om die variansie van risiko vir MIV te ondersoek. Die enigste beduidende voorspellers in stap 3 was "ooit gedreig om seks te hê" en "ooit geforseer om seks te hê". Die kombinasie hiervan het 14% ($R^2 = 0.14$; F (12, 236) = 3.14, $p = 0.00$) verklaar. Depressie en ouer-adolessent-kommunikasie is onderskeidelik in stappe 2 en 3 bygevoeg, en albei veranderlikes was onbeduidend in hierdie modelle.

In Fase 2 het ek die CDC se intervensie vir die verlaging van risiko aangepas en met 'n loodsprojek getoets. Die intervensie was bedoel om geskik te wees vir die ontwikkelings- en kontekstuele vlakke van 16- tot 18-jarige adolessente van Soweto wat beskou is as potensiële deelnemers aan toekomstige MIV- biomediese proewe. Deelnemers in Fase 2 was 16 tot 18 jaar oud, die steekproef was hoofsaaklik vroulik (52%, $n = 11$) en die meeste van die deelnemers (91%, $n = 19$) was in grade 8 tot 12 op hoërskool. Deelnemers het tydens indringende onderhoude terugvoering oor

hulle ervarings van die aangepaste beradingsintervensie verskaf. Ek het drie hooftemas in hierdie verband geïdentifiseer, wat die volgende insluit: voordele van MIV-toetsingsdienste, redes waarom berading en MIV-toetsingsdienste verlang word, en die deelnemers se evaluering van die studiebesoeke en beradingsessies. Daar is bevind dat die aangepaste beradingsintervensie van die CDC aanvaarbaar was en gunstige uitkomste gelewer het vir die adolessente wat aan die loodsfase deelgeneem het.

Hierdie studie dra by tot die literatuur oor MIV-risiko's vir adolessente in Soweto, Suid-Afrika, deur meervoudige invloedsvlakke te oorweeg. Die feit dat 'n meer volledige begrip tydens die loodsondersoek verkry is van die interaksie van die ekologiese faktore wat tot seksuele risikogedrag onder adolessente bydra, het die ontwikkeling van 'n doelgemaakte intervensie deur berading moontlik gemaak. Die bevindings het getoon dat die aangepaste beradingsintervensie van die CDC lewensvatbaar en aanvaarbaar is vir gebruik onder adolessente wat waarskynlik geskikte deelnemers aan toekomstige biomediese proewe oor MIV-voorkoming kan wees. Hierdie studie verskaf dus 'n noodsaaklike beradingsintervensie om die MIV-risiko onder adolessente – 'n ouderdomsgroep wat waarskynlik aan toekomstige biomediese navorsing oor MIV-voorkoming sal deelneem – te verminder.

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Dedication

To Marwan, Muneeb, and Kamal, who (patiently) understood the importance of doing my "homework".

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List of Abbreviations

AIDS	Acquired Immunodeficiency Syndrome
CDC	Centers for Disease Control and Prevention
CDI	Children's Depression Inventory
FDA	Food and Drug Administration
FGD	Focus Group Discussion
HIV	Human Immunodeficiency Virus
HIVSA	HIV South Africa
HIV and STIs NSP	HIV and STIs National Strategic Plan for South Africa (NSP)
HVTN	HIV Vaccine Trials Network
HCT	HIV testing and counseling
KMAC	Kganya Motsha Adolescent Center
MDG	Millennium Developmental Goal
MMC	Medical male circumcision
MSM	Men who have sex with men
NDoH	National Department of Health
NPO	Non-Profit Organization
NIMH	National Institute of Mental Health
PACS	Parent-adolescent communication scale
PHRU	Perinatal HIV Research Unit
RHRU	Reproductive Health Research Unit
SPSS	Statistical Package for the Social Sciences
STIs	Sexually transmitted infections
UNAIDS	Joint United Nations Program on HIV/AIDS

UNICEF	United Nations Children's Fund
WHO	World Health Organization

Chapter One

Introduction, motivation, and aims of the study

1.1 Introduction

Human immunodeficiency virus (HIV) affects at least 35.3 [confidence interval (CI):[1]32.2, 38.8] million people worldwide (Joint United Nations Program on HIV/AIDS (UNAIDS), 2013). According to UNAIDS (2012), sub-Saharan Africa accounts for 69% of the global burden, with 23.5 million [22 100 000, 24 800 000] adults and children living with HIV. In 2011, young women and men aged 15–24 from sub-Saharan Africa accounted for 3.1% [2.6, 3.9] and 1.3% [1.1, 1.7], respectively, of the global HIV prevalence. Worldwide, South Africa has the highest number of people living with HIV. HIV prevalence was 19.3% [8.7, 19.9] among pregnant young women aged 15 to 24 years in 2012 (National Department of Health (NDoH), 2013). In 2011, the total population of children younger than 18 years in South Africa was 18.5 million (Statistics South Africa (Stats SA), 2012). Adolescents aged 15 to 19 accounted for approximately 10% (about five million) of the total South African population (The Children's Institute and others, 2009). Current South African national sero-prevalence data show a decline in HIV prevalence from 5.6% [4.2, 7.5] and 0.7% [0.4, 1.2] in 2012 to 6.7% and 2.5% in 2008 among adolescent girls and boys [15–19 years], respectively (Shisana et al., 2014). The data indicates a slight decline in HIV prevalence amongst the 15–19 year age group from 2008 to 2012 (Shisana et al., 2014).

Despite the slight decline of HIV incidence amongst adolescents in South Africa (Shisana et., 2014), the South African government is far from achieving the targets set in the HIV and Sexually Transmitted Infections (STIs) National Strategic Plan for South Africa (NSP) 2012–

[1] The 95% Confidence Interval (CI) is used throughout the dissertation, unless otherwise stated.

2016 (NDoH, 2012) and the Millennium Developmental Goal (MDG) No. 6 (Chopra et al., 2009). In 2007, the main aim of the HIV/AIDS and STIs NSP was to reduce the number of new HIV infections by 50% in 2011 (NDoH, 2007). This aim was not achieved. Since then, the NSP 2012 to 2016 was developed with the same aim of achieving at least a 50% reduction in new HIV infections in South Africa (NDoH, 2012).

The aim of the MDG No. 6 is to reduce HIV infections by 2015 to achieve a reversal in the spread of HIV and AIDS (Chopra et al., 2009). According to the HIV/AIDS and STIs NSP (NDoH, 2007), the South African government reported it was meeting its targets. However, these reports are questionable because the primary goal of a 50% reduction in new HIV infections was not reached in 2011. Although HIV prevalence among adolescents has decreased significantly since 2008, prevalence among the general population has, conversely, increased significantly. There was a statistically significant increase among the general population, with 1.2 million more people living with HIV (p <0.001) (Shisana et al., 2014) since 2008. This increase may be attributed to biological vulnerability, gender-based inequality, and violence, especially violence experienced by women (Chopra et al., 2009).

1.2 Motivation for the study

Adolescent sexuality is multi-faceted and influenced at multiple levels (Bronfenbrenner, 1994; Eaton, Flisher, and Aaro, 2003; Pettifor et al., 2013). However, only a few behavioral HIV prevention programs in South Africa include social and historical contextual factors which may influence adolescent sexuality (The Children's Institute and Others, 2009). Few programs exist that have been able to address adolescent risks for HIV by contextualizing the individual with reference to his or her family, schooling, peers, and community (Eaton et al., 2003). Instead, HIV

prevention programs tend to be generic in nature, with a uniform standard applied to all adolescents, regardless of personal circumstances (Kahn, Marseille, and Kramer, 2005; Jewkes et al., 2008). These prevention programs will be addressed in Chapter Two of this dissertation. This lack in understanding the various contexts of adolescent sexuality may have been a contributing factor to the slow decline in HIV prevalence, despite high levels of HIV/AIDS awareness.

For example, loveLife, established in 1999, was a national media campaign in South Africa. LoveLife was tasked with halving the incidence of HIV in the 15–20 year age group within a three-to-five-year period (Parker, 2003). Lovelife used an extensive media campaign that employed a set list of HIV messages aimed at young people. LoveLife claimed to have been an "HIV programme that works" (Keyan, 2003, para. 6). However, this success has, apart from a slight decrease in figures for infection in the 15–19 year age group, not been evident in a substantive HIV decline in the adolescent age group or in the overall infection rates according to the government's annual antenatal surveys of HIV.

There may have been a reduction in new HIV infections among adolescents, but loveLife has not as yet achieved its target of a 50% reduction among young people (including adolescents). A study conducted by Pettifor et al. (2005a) showed that loveLife had, in fact, not achieved a significant reduction in new HIV infections among young people. According to Warren Parker (2003), former executive director of the Center for AIDS Development Research and Evaluation, loveLife's short-term claims regarding its impact had limited its ability to modify the design for long-term impact, that is, a 50% reduction of HIV incidence among young people. The limited successes of programs such as loveLife show that socio-behavioral programs on their own fail to significantly reduce HIV incidence among young people in South Africa. Instead, researchers like Pettifor et al. (2013) propose a combination prevention approach that

incorporates biomedical and socio-behavioral interventions. Thus, the present study will contribute to the literature by providing a psychosocial counseling approach that can be used within the context of future biomedical HIV prevention interventions for adolescents.

1.3 Progress related to biomedical interventions for HIV prevention

Despite the limited success of behavioral interventions in reducing HIV incidence (Jewkes et al., 2008), biomedical interventions have begun to show efficacy in reducing new HIV infections. These biomedical interventions include medical male circumcision (Auvert et al., 2005; Bailey et al., 2007; Gray et al., 2007), Pre-Exposure Prophylaxis (PrEP) (Baeten and Celum, 2013; Thigpen et al., 2012) and microbicides (Abdool Karim et al., 2010). HIV vaccine research is also starting to show promise (Gray and Michael, 2013). It is within this context of biomedical research that a gap was identified for a psycho-social counseling intervention that was appropriate for adolescents

Scientists have been working to find effective biomedical interventions, such as a preventative HIV vaccine (McClure, Gray, Rybczyk, and Wright 2004). They argue that a vaccine would be a more effective and affordable method in the long-term by eradicating the burden of HIV/AIDS (Allen et al., 2005). Candidate vaccines have been tested on adults, pregnant women, and, more recently, infants. It is hypothesized that a preventative vaccine would be most effective among adolescents if administered prior to sexual initiation (McClure et al., 2004). Adolescents are thus a future population of interest within which to test candidate vaccines, following successful efficacy testing in adults.

In preparing to enroll adolescent participants in future biomedical trials, particularly preventative HIV vaccine trials, it is critical that steps be taken to ensure that appropriate

counseling services are provided for them. The Centers for Disease Control and Prevention (CDC) risk reduction counseling intervention has thus far been the standard form of risk reduction counseling used in HIV vaccine trials in South Africa. The Perinatal HIV Research Unit (PHRU) used the CDC risk reduction counseling intervention with adult vaccine trial participants involved in phases 1 and 2 HIV vaccine trials as well as in phase 3 of the HIV prevention study. In phase 1 vaccine trials, investigators test the safety and the immune response to the vaccine among HIV negative volunteers (HIV Vaccine Trials Network, 2013). In phase 2 vaccine trials, HIV negative volunteers are enrolled to gather more data on safety and the immune response as well as data on the most effective dose and administration schedule (HIV Vaccine Trials Network, 2013). Phase 3 trials enroll thousands of HIV-negative volunteers to investigate whether or not a vaccine is effective in preventing HIV infection (HIV Vaccine Trials Network, 2013). Further, the data are used to indicate the vaccine's safety and effectiveness in large numbers of people to support licensure application to the US Food and Drug Administration (FDA). At the time of this writing, it was anticipated that the CDC risk reduction counseling intervention would continue to be used as the standard HIV risk reduction counseling model with future adolescent trial participants.

1.4 The CDC risk reduction counseling intervention: A success story from the United States

The CDC risk reduction counseling intervention was developed and tested in the United States via a trial called Project Respect from 1993 to 1996 (Kamb et al., 1998). Project Respect was a national multi-center randomized control trial conducted in the United States to test the efficacy of HIV prevention counseling in reducing HIV risk related behaviors and consequently

prevention of new STIs. A sample of 5 758 heterosexual, HIV negative men and women, 14 years and older, were recruited from public STI clinics across the United States.

In the American study, participants were randomized to one of four study arms (Kamb et al., 1998): enhanced counseling (Arm 1), brief counseling (Arm 2), and two didactic messaging arms (Arm 3 and Arm 4). Enhanced counseling consisted of four sessions (200 minutes in total). Brief counseling consisted of two sessions (40 minutes in total). Two didactic messaging conditions, each consisting of two five-minute sessions and focusing on typical messaging regarding HIV and STIs, such as using condoms and having one partner, comprised Arms 3 and 4. However, participants received follow-up visits for Arm 3, but not for Arm 4. Outcome variables were: an increase in self-reported 100% condom use at three and six months post intervention and a reduction in the number of STIs at six and twelve months post intervention.

1.5 Plans to adapt an aspect of Project Respect in Soweto, South Africa

The present research study for this dissertation was embedded within a larger research study that was funded by the National Institute of Mental Health (NIMH), entitled: "Developing and Validating a Cultural and Age Appropriate Risk Reduction Counseling Intervention for Adolescent HIV Vaccine Trial Participants". Funding was approved to adapt the Project Respect CDC risk reduction counseling intervention so that it was developmentally and contextually appropriate for adolescents aged 9–18 years in Soweto. The format of the intervention was modeled on its American counterpart and consisted of: (1) a risk assessment component, (2) developmentally tailored counseling techniques, (3) an individualized risk reduction plan, and (4) individualized risk reduction strategies. The risk reduction strategies included decision-making skills (such as, delaying sexual debut), having only one partner, and interpersonal skills

(such as, negotiating safer sex by using condoms) that adolescents can implement to augment risk reduction behavior. However, the actual content of the interventions was informed by the descriptive data collected in phase 1 of the present study. For example, whereas adolescents in the United States were required to receive an STI test prior to the intervention, South African adolescents require an HIV test prior to enrolment in a clinical trial, even though some of them may not be sexually active. The expectation is to use the adapted intervention in future HIV vaccine clinical trials that are likely to enroll adolescents.

1.6 The NIMH study in Soweto: Developing and validating a cultural and age appropriate counseling intervention for adolescent participants in future HIV vaccine trials

The NIMH study was a three-phase mixed method design study conducted from 2007 to 2013. The principal investigators were professors Glenda Gray of Johannesburg, South Africa and Kathleen Sikkema of Durham, United States. I was the project manager and social scientist for the duration of the study, and was involved from the start in all phases, that is, in terms of conceptualizing the research design, collecting the data, and managing the data analysis. Figure 1, following, provides a graphic representation of the NIMH study *vis a vis* my doctoral study.

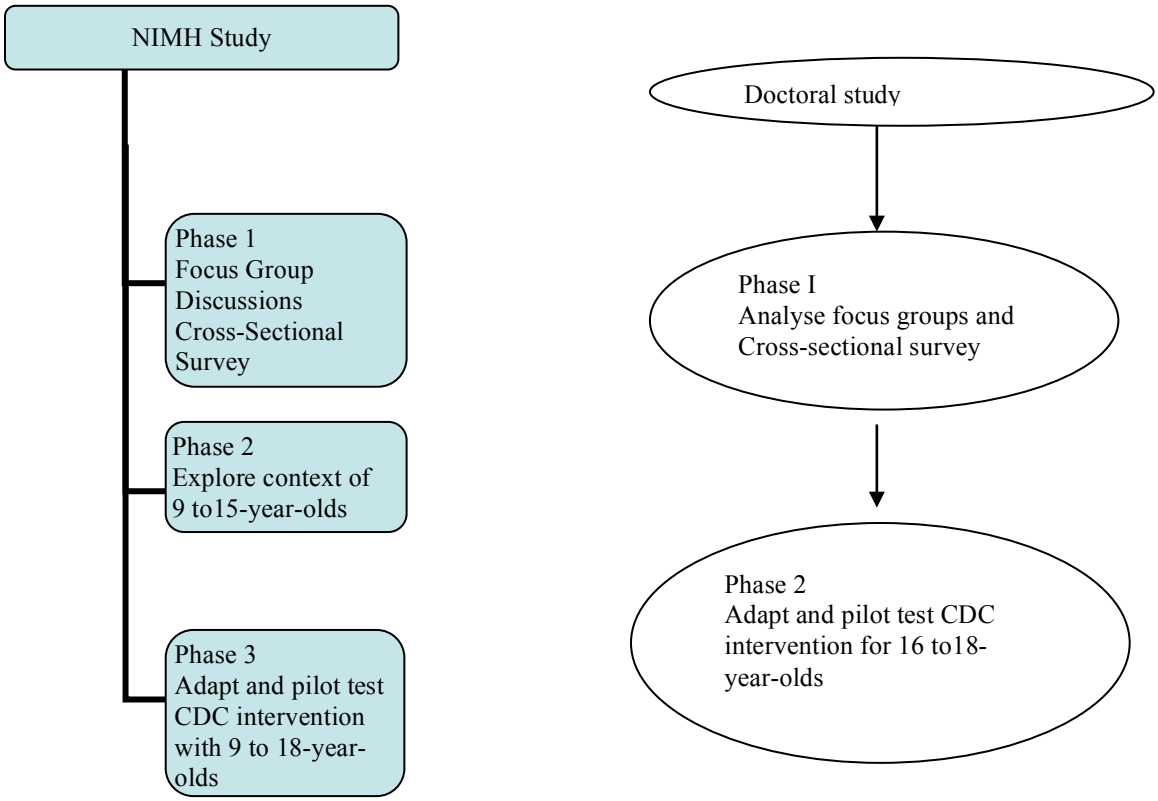


Figure 1. Diagrammatic overview of the NIMH study and the researcher's doctoral study

Phase 1 of the NIMH study described sexual behavior and the context that may place 16 to 18-year-old adolescents living in Soweto at risk for HIV. Data were collected via Focus Group Discussions (FGDs) and a cross-sectional survey.

Phase 2 incorporated a qualitative methodology to explore the structural context of 9 to 15 year olds living in Soweto.

Phase 3 used the qualitative and quantitative data collected in Phase 1 to adapt and pilot test the CDC risk reduction counseling intervention. The present doctoral study was located within Phases 1 and 3 of the NIMH study to adapt the CDC risk reduction counseling intervention for 9 to18 year old adolescents in Soweto. Data already collected in Phase 1 were

analyzed and used to adapt and pilot test the CDC risk reduction counseling intervention so that it was age- and contextually-appropriate for 16 to18-year-old Soweto adolescents.

1.7 Research problem and study aims

To date, adolescents have not been enrolled in preventative HIV vaccine safety and efficacy trials. An HIV vaccine has to first show safety and efficacy among adults before being tested on adolescents. As far as I could ascertain, no psychosocial intervention had been developed in South Africa for use among adolescent participants in future HIV vaccine trials.

The aims of the present study were:

- **Phase 1:** To determine the psychological (for example, self-esteem and depression), behavioral (including, sexual behavior), and social (including, social support, parent-adolescent communication) contexts that place the sample of interest at risk for HIV infection. In Phase 1a, I qualitatively explored adolescent sexuality and risk factors for HIV among a diverse sample of participants. This aim was achieved by analyzing data that had already been collected through FGDs. In Phase 1b, I developed a composite HIV risk scale in order to measure the variance in HIV risk among a sample of adolescents from Soweto. This aim was achieved by analyzing data that had already been collected via a cross-sectional survey.
- **Phase 2:** To adapt and pilot test the modified CDC risk reduction counseling intervention for acceptability and feasibility among 16 to18-year-old Soweto adolescents. This aim was achieved by adapting the CDC risk reduction counseling intervention of Project Respect. Thereafter, the adapted intervention was pilot tested for feasibility and acceptability among a sample of likely adolescent trial participants.

The initial proposal for my doctoral dissertation was presented to a committee at the Department of Psychology at Stellenbosch University in November, 2010. The committee granted approval for me to embed my doctoral dissertation within the NIMH study by utilizing the methodology outlined below. The unique aspects of my doctoral dissertation were the following:

- **Phase 1:** For Phase 1a, I conducted an extensive thematic analysis of the data I obtained from the nine FGDs to explore adolescent sexuality and risk factors for HIV among a diverse sample of participants. In Phase 1b, I developed a composite HIV risk scale to measure the variance in HIV risk among a sample of adolescents from Soweto. The development of the sexual risk scale and the statistical method of using linear regression were unique to my doctoral dissertation.
- **Phase 2:** I used an online risk assessment in Phase 2 that was not part of the original NIMH study. The online risk assessment builds on my previous work of using mobile technology among young people and was a unique contribution by me to the NIMH study as well as my doctoral dissertation. The committee considering my proposal recommended that I confine my assessment of acceptability and feasibility to in-depth interviews conducted among a small sample of adolescents. Thus, this phase of my dissertation was an investigation of acceptability and feasibility and not a Phase 1 behavioral trial.

1.8 Organization of the dissertation

Chapter One provides the introduction, motivation, and aims of the study. In addition, an overview of the dissertation is included.

Chapter Two provides the literature review and includes sections on HIV prevalence, adolescence as a developmental phase, and sexuality. I discuss these factors in terms of the global context, sub-Saharan Africa, and South Africa, with reference to adolescents and young people. In addition, behavioral and sexual risk factors for HIV are discussed in terms of multiple levels of influence. Last, I discuss HIV prevention strategies for adolescents in South Africa.

Chapter Three describes the theoretical frameworks used in the present study. These included the ecological systems theory and the integrative model of behavioral prediction. I discuss these theories in terms of their application to the present study.

Chapter Four provides the methodology, findings, and discussion of Phase 1a. In Phase 1a, data were collected through FGDs.

Chapter Five provides the methodology, results, and discussion sections of Phase1b. In Phase 1b, data were collected through a cross-sectional survey.

In Chapter Six, I outline how the CDC risk reduction counseling intervention was adapted. Thereafter, I describe the methodology and results of Phase 2. In Phase 2, the adapted CDC risk reduction counseling intervention was pilot tested. Therefore, I present the results of a socio-behavioral risk assessment survey and the findings of the in-depth interviews. Last, I provide a discussion of the results of Phase 2.

Chapter Seven summarizes the results of the study, presents its limitations, and implications and recommendations and ends with a conclusion of the present study.

Chapter Two

Literature Review

2.1 HIV Prevalence among Adolescents

2.1.1 Global HIV prevalence and incidence.

In 2012, young people aged 12–24 accounted for 1.6 billion of the total global population (UNAIDS, 2012). In 2010, ten million young people globally, including adolescents, were estimated to be living with HIV (Wilson, Wright, Safrit, and Rudy, 2010). In 2012, UNAIDS (2013) estimated that 2.1 million adolescents, aged 10–19, were living with HIV. Young people, defined as persons in the age group 15–24, remain most severely affected by HIV (UNAIDS, 2011). However, from 2001 to 2012, HIV prevalence among young people has declined by 42% across the globe, including countries in sub-Saharan Africa, the latter which have the largest pandemics in the world (UNAIDS, 2013). The global HIV incidence among young people aged 15–24 decreased from 0.7% [0.6, 0.9] and 0.4% [0.3, 0.5] in 2005 to 0.6% [0.4, 0.6] and 0.3% [0.2, 0.4] in 2011, among women and men respectively (UNAIDS, 2012).

The mode of transmission for HIV among young people differs, depending on geographic location. Data on mode of transmission for adolescents is typically included in the 15–49 year or the 15–24 year age groups. In addition, there is limited data focusing exclusively on key adolescent populations globally. In sub-Saharan Africa, the main mode of transmission is via heterosexual intercourse with onward transmission to children (Idele et al., 2014). In 2011, the HIV prevalence was 3.1% [2.6, 3.9] among young women and 1.3% [1.1, 1.7] among young men in sub-Saharan Africa (UNAIDS, 2012).

In other parts of the world, young men who have sex with men (MSM), young injection drug users, and young people (both male and female) who engage in sex work have a higher prevalence of HIV compared with young women (Idele et al., 2014; UNAIDS, 2011; UNAIDS, 2013). According to Pettifor et al. (2013), young MSM are most at risk in the United States and Europe. Valleroy et al. (2000) conducted cross-sectional, multi-site, venue-based young men's surveys to investigate HIV prevalence and associated risk among 3 492 MSM aged 15 to 22 year old in metropolitan areas in the United States. The overall prevalence of HIV infection among this MSM group was 7.2% [6.34, 8.06] and increased with age. HIV prevalence among young MSM in Moscow was 10.8% (UNAIDS, 2013).

Injection drug users and their partners are most at risk in Central and Eastern Europe as well as Central Asia (Pettifor et al., 2013). Injection drug use accounts for more than 40% of new HIV infections in Eastern Europe (UNAIDS, 2013). HIV prevalence was 7.1% and 12% in Ukraine and Moscow respectively among injection drug users younger than 25 years (UNAIDS, 2013). HIV prevalence was 7% and 15% among 9–15 and 20–24 year old injection drug users in Myanmar, a country in Central Asia (UNAIDS, 2013). According to Idele et al. (2014), young sex workers and those exploited for sex are at higher risk for HIV in Asia.

2.1.2 HIV prevalence in sub-Saharan Africa.

Sub-Saharan Africa accounts for more than two-thirds (70%) of new HIV infections globally (UNAIDS, 2013). In 2011, 23.5 million [22.1, 24.8] people in sub-Saharan Africa were living with HIV (Onokerhoraye, Maticka-Tyndale, and HP4RY Team, 2012). Many sub-Saharan African countries have the highest HIV pandemics in the world (UNAIDS, 2010), with several showing stable or declining HIV incidence (UNAIDS, 2011). HIV prevalence among adults aged 15–49 was highest in the following countries: Nigeria (3.1%), South Africa (17.6%), Zambia

(12.7%), and Zimbabwe (14.7%) (Onokerhoraye et al., 2012). HIV prevalence in Nigeria is low when compared to South Africa. However, the number of people living with HIV in Nigeria (N = 5.3 million) is close to that of South Africa. In 2009, Southern Africa was the most severely affected region in the world, with a HIV prevalence estimated at 11.3 million [10.6, 11.9], which accounted for 34% of the global HIV burden (UNAIDS, 2010). Many Southern African countries, including South Africa, are disproportionately affected (Shisana et al., 2009), with an HIV prevalence higher than 15%, that is, 24.8% in Botswana, 23.6% in Lesotho, and 25.9% in Swaziland. HIV prevalence is highest among young people compared with other age groups in Southern African countries (UNAIDS, 2013). In 2012, HIV prevalence was estimated to be 8% among women and 3% among men, in the 15–24 age group in Southern Africa (UNAIDS, 2013).

2.1.3 HIV prevalence in South Africa.

South Africa has the largest HIV prevalence globally, with an HIV prevalence of 12.2% [11.4, 13.1] (Shisana et al., 2014). Approximately 6.4 million people in South Africa are infected with HIV (Shisana et al., 2014). According to the fourth population based household survey of 2012, there has been a statistically significant increase ($p < 0.001$) in HIV prevalence from 2008 to 2012 (Shisana et al., 2014). HIV prevalence, according to the third survey conducted in 2008, was 10.6% [9.8, 11.6] (Shisana et al., 2009). However, HIV prevalence among young people decreased significantly from 8.7% [7.2, 10.4] in 2008 to 7.1% [6.2, 8.1] in 2012 ($p < 0.001$) (Shisana et al., 2014). HIV prevalence in South Africa is regarded as hyper-endemic because it is greater than 15% among the 15–49 year-old population (Shisana et al., 2014).

In 2012, Shisana et al. (2014) conducted South Africa's fourth population-based household survey. The sample (N = 28 658) was stratified by province, settlement geography,

and predominant race group in each area. Adults aged 15–49 accounted for 18.8% [17.5, 20.3] of people living with HIV in South Africa. HIV prevalence was 7.1% [6.2, 8.1] among 15–24 year olds. HIV incidence among young people was 1.5 [1.2, 1.9], with 139 000 [113 000, 175 000] new HIV infections. Young women (15–24 years) were 3.9 times more likely to be infected with HIV compared to their male counterparts ($p < 0.001$). Young black Africans had the highest HIV prevalence of 8.4% [7.3, 9.6]. HIV prevalence was 5.6% [4.2, 7.5] and 0.7% [0.4, 1.2] among adolescent girls and boys (15–19 years) respectively.

The high HIV prevalence among women and girls is evident among antenatal clinic attendees in South Africa (NDoH, 2013). In 2012, HIV prevalence was 29.5% [28.8, 30.2] among 33 865 women aged < 15 and > 49 years. HIV prevalence was 19.3% [18.7, 19.9] among 16 578 young women aged 15 to 24 and 12.4% [11.6, 13.3] among 6 578 adolescent girls aged 15 to 19 (NDoH, 2013).

2.1.4 HIV prevalence in Soweto, Johannesburg.

Soweto is situated within Gauteng Province. In 2012, Gauteng Province was the most populous province in South Africa, accounting for approximately 23.8% (~12 million) of the South African population (Stats SA, 2012). The fourth population based HIV prevalence survey showed HIV prevalence in Gauteng to be 12.2% [10.5, 15.5] for those two years of age and older and 5.8% [4.0, 8.2] among young people in general (Shisana et al., 2104). The national antenatal HIV survey among pregnant women showed HIV prevalence in Gauteng to be 19.6% [18.2, 21.0] among 2 901 young women aged 15 to 24 and 12.7% [10.5, 14.9] among 888 adolescent girls aged 15 to 19 (NDoH, 2013).

Soweto is an urban township located near Johannesburg, South Africa. The township is estimated to have a population of about one million people in an area of 150km^2 (City of

Johannesburg, 2013). HIV prevalence among young people in Soweto was lower than in the rest of Gauteng (Nkala et al., in press). The Kganya Motsha Adolescent Center (KMAC), an adolescent-friendly clinic situated in Kliptown, Soweto, provided free HIV Counseling and Testing (HCT) to adolescents and their partners from 2008 to 2012. In 2012, KMAC data showed HIV prevalence to be 3% (*n* = 54) among 1 783 young people aged 15 to 24 (Nkala et al., in press). Using the same dataset, HIV prevalence was 3.6% *(n* = 50/1 379) among girls and 1% (n = 4/404) among boys (Nkala et al., in press). Prevalence of HIV among the adolescent cohort at KMAC was lower than the provincial and national statistics for this age group.

2.2 Adolescence as a developmental phase

The term "adolescence" is complex to define, as it covers various age ranges by different groups. According to Jaspan et al. (2008), adolescence is a developmental phase that consists of biological, psychological, and social changes that transition the adolescent from childhood to adulthood. It is a period usually associated with problems and challenges, mostly normative, as young individuals learn to become young adults (Plant and Plant, 1992). This study will use the United Nations Children's Fund (UNICEF, 2011) definition of adolescence, that is, the developmental period ranging from age 10–19. Adolescence is generally classified into two periods: early adolescence (10–14) and late adolescence (15–19) (UNICEF, 2011). The distinction between these two stages is often marked by cognitive and physical developmental differences (Jaspan et al., 2008).

The onset of physical changes also known as puberty, or sexual maturation, usually starts during early adolescence. Puberty is linked with hormonal changes and biological maturation, including the age of the first menarche for girls (Fortenberry, 2013; Sommer, 2011) and

nocturnal emissions for boys (wet dreams). These life events can significantly alter the lives of adolescents, particularly in girls. For girls, these physical changes may imply increased household chores, restricted interactions with boys and men and pressure to initiate sexual activity (World Health Organization (WHO), 2012). For boys, the onset of puberty may result in pressure to engage in unsafe sexual activity and the expectation to start earning an income to support their families (Sommer, 2011).

Fortenberry (2013) argues that puberty is coupled with cognitions related to sexual activity. Sexual attractions and sexual thoughts are cognitive markers for sexual desire. Adolescents start thinking more about sex and fantasize about it. During this time, thoughts about sex also include decision-making about abstinence and when to initiate sexual activity. Cognitive processing at this stage is complex and is influenced by the adolescent's awareness of sexual attraction to others as well as sexual desire and attraction from others (Fortenberry, 2013).

For Eccles (1999), identity development is a critical developmental change occurring during adolescence. As the adolescent establishes autonomy, peer relationships start to become increasingly important. Having friends and being accepted by peers become critical (Heller and Swindle, 1983; Ladd and Oden, 1979; Masten, Eisenberger, Pfeifer, and Dapretto, 2013). Doll (1996) used the term "peer acceptance" to refer to the degree to which peers like a child and want to spend time with the child. Peer acceptance and affiliation may place adolescents at higher vulnerability to risk factors associated with HIV (Bhana and Petersen, 2009). Peer pressure is the mode by which peer norms are transmitted (Coleman and Hendry, 1990) and can have a negative or positive effect on the adolescent regarding sexuality and sexual decision-making (Visser, 2007; Bhana and Petersen, 2009). For example, depending on the peer group's

norms, virginity may be celebrated or an adolescent may feel pressured to initiate sex to be accepted by the peer group.

Sexual experimentation and exploration typically begin during adolescence (Fortenberry, 2013; Livingston, Bay-Cheng, Hequembourg, Testa, and Downs, 2013). However, it is in exploring their sexuality that adolescents are vulnerable to risky sexual behaviors (Bauermeister, Elkington, Brackis-Cott, Dolezal, and Mellins, 2009). According to Plant and Plant (1992), identity development becomes critical during adolescence. In search of their identity, adolescents may begin experimenting with drugs, alcohol, and risky sex—often simultaneously—which may expose them to HIV (Plant and Plant, 1992).

Not all adolescents experience adolescence and risk-taking in the same way. Gender, personality, and social context differences influence risk taking (Bhana and Petersen, 2009; Plant and Plant, 1992; Smetana and Turiel, 2006). Plant and Plant (1992, p. 120) argue that risk-taking, in general, is "natural, commonplace, and in some form or another, inevitable". Risk-taking in itself may not result in negative consequences. However, some activities are more dangerous than others (Plant and Plant, 1992). For example, an adolescent who engages in unprotected oral sex is at lower risk compared to an adolescent who participates in unprotected vaginal sex. Thus understanding the factors influencing risk and protective behaviors is important in developing HIV prevention interventions for adolescents in the era of HIV.

2.3 Adolescent sexuality

2.3.1 Adolescent sexuality globally.

Adolescent sexuality is a normal part of adolescent development. However, adolescent sexual health is of great concern worldwide (Fortenberry, 2013; Plant and Plant, 1992). Sexual

health is defined as "the ability to express one's sexuality free from the risk of STIs, unwanted pregnancy, coercion, violence, and discrimination" (Lebese, Davhana-Maselesele, and Obi, 2010, p. 25). Sexual health means being able to have an informed, enjoyable, and safe sex life based on a positive approach to sexual expression and mutual respect in sexual relations (Lebese et al., 2010). Exposure to HIV during adolescence is increased due to early sexual debut, multiple sexual partners, and infrequent condom use (Jewkes, Vundule, Maforah, and Jordaan, 2001; Macleod and Weaver, 2003; Dilorio, McCarty, Resnicow, Lehr, and Denzmore, 2007; Harrison, Cleland, Gouws, and Frohlich, 2005; Ng and Kamal, 2006; Eaton et al., 2003). Condom use has increased globally but remains lower in developing countries (Wellings et al., 2006).

Sexual behavior among adolescents varies by country (Wellings et al., 2006). Bearinger, Sieving, Ferguson, and Sharma (2007) provide a comprehensive report of adolescent sexual behavior globally. For instance, almost half the adolescents surveyed in developed countries reported sexual experience. In the United States, 46% females and males aged 15–19 reported sexual experience, with 54% females and 71% males respectively reporting condom use. In Latin American countries, female adolescents reported lower sexual experience compared to developed countries. For instance, in Brazil 22% females and 63% males aged 15–19 reported being sexually experienced; condom use was unknown for females and 34% for males. In sub-Saharan African countries, sexual experience differed by country; however, self-reported condom use by gender was lower than in the developed countries. For example, in Gabon, 63% females and 77% males aged 15–19 years reported sexually experienced, with self-reported condoms use at 34% and 47% among females and males respectively. In Rwanda, 7% females

and 20% males respectively reported sexual experience, with self-reported condom use at 27% and 41% among females and males respectively.

Multiple levels of influence affect differences in sexual behavior among adolescents globally (DiClemente, Salazar, and Crosby, 2007). Despite variations in sexual behavior, more than half of adolescents globally initiate sexual activity by the age of 16, with some starting as early as 14 and younger (Bauermeister et al., 2009); Dilorio et al., 2007; Harrison et al., 2005). Sexual debut is a critical risk factor for HIV, because it signals entry into sexual relationships (Shisana et al., 2009). Early sexual debut is largely influenced by unplanned sexual experimentation (Plant and Plant, 1992), early marriages (mostly in developing countries) (WHO, 2012), and sexual violence (Livingston et al., 2013; WHO, 2012). Earlier sexual debut can, paradoxically, also be explained in the trend toward later marriages and, consequently, increased premarital sex (Wellings et al., 2006).

Unintended pregnancies among adolescents are an indicator that adolescents are engaging in unprotected sexual activity (Mchunu, Peltzer, Tutshana, and Seutlwadi, 2012). Globally, 16 million girls aged 15 to 19 give birth each year, which translates into one in five girls globally giving birth by the age of 18 (WHO, 2012). In developing countries, this ratio decreases to one in three girls. In sub-Saharan African countries, pregnancy rates are highest among girls younger than 16 (Neal et al., 2012); in these countries pregnancy among girls aged 10–19 is associated with risk for HIV (Mchunu et al., 2012) and school dropouts (Panday, Makiwane, Ranchod, Letsoalo, 2009).

Reducing teenage pregnancies is a critical component of the MDGs to reduce extreme poverty by 2015 by improving opportunities for adolescent girls (Jewkes, Morrel, and Christophides, 2009). Reducing teenage pregnancies is an agenda item of the MDGs because of

negative health and structucal outcomes for adolescent girls, including maternal and child mortality, unsafe abortions, which continues the cycle of poverty (WHO, 2012). Girls and their parents typically bear the consequences and costs of teenage pregnancy (Jewkes et al., 2009). Teenage pregnancies are influenced by many factors, including early marriage, low levels of education, limited educational and employment opportunities, pressure to bear children, and sexual violence (WHO, 2012).

Education, particulary secondary schooling, is a protective factor in reducing teenage pregnancies (WHO, 2012). Sex education and access to reproductive health services are key components in reducing teenage pregnancy. Sex education for both boys and girls plays an important role in providing correct and comprehensive information about ways to prevent pregnancy and STIs, including HIV (Mchunu et al., 2012). Gevers, Matthews, Cupp, Russel, and Jewkes (2013) recommend that sex education be coupled with comprehensive adolescent-friendly services and access to free contraceptives and condoms.

The prevalence of STIs is a biomarker for unprotected sexual activity among adolescents. One in twenty young people aged 15 to 24 worldwide acquires a STI annually (Dehne and Riedner, 2005). According to the CDC, young people in the United States aged 15–24 account for half of all annual incident STIs, about 10 million cases per year, with higher rates of chlamydia and gonorrhoea among this age group (CDC, 2011). Haar et al. (2013) conducted a representative population-based survey in Germany to measure the prevalence of chlamydia trachomatis infection among 789 boys aged 16 to 17 and 1 136 girls aged 15 to 17. Girls had a higher prevalence compared to boys. The prevalence was 2.2% [1.4, 3.5] among girls and 0.2% [0.1, 0.7] among boys. Among girls, prevalence increased with age.

2.3.2 The context of adolescent sexuality in sub-Saharan Africa.

Young women, including girls, are more vulnerable to HIV infection in sub-Saharan Africa (UNAIDS, 2012) owing to many complex factors, including early sexual debut (Peltzer, 2010), sexual partnerships with older men (Leclerc-Madlala, 2008), multiple sexual partners (Muchimba et al, 2013; Onokerhoraye et al., 2012), intimate partner violence (Dunkle et al., 2004a), and transactional sex (Dunkle et al., 2004b). In addition, early menarche among girls can have negative outcomes, such as teenage pregnancies, early marriage, and school dropouts (Glynn et al., 2010).

Peltzer (2010) investigated the prevalence and predictors of early sexual debut among 10 070 school-going adolescents aged 15 years in eight sub-Saharan African countries, namely, Botswana, Kenya, Namibia, Senegal, Swaziland, Uganda, Zambia, and Zimbabwe. Data were obtained via the Global School-Based Health Survey conducted in these countries. Almost a third of the participants surveyed [27%, CI: 25.4, 29.3] reported sexual debut before the age of 15. In all countries, except Zambia, sexual debut was significantly higher among boys. Among those sexually active, 16.3% [14.7%, 17.9] reported having had two or more sexual partners during their lifetime; moreover, self-reported condom use was low among those sexually active [54.6%, CI: 50.6, 59.6]. Multivariate regression analysis showed early sexual debut among boys to be associated with currently smoking and truancy, while among girls it was associated with being drunk, low levels of education, not having close friends, and poor parent connectedness.

2.3.3 The context of adolescent sexuality in South Africa.

Adolescents living in South Africa are at the highest risk for HIV compared with adolescents living in other countries (Harrison, Newell, Imrie, and Hoddinott, 2010; Louw,

Peltzer, and Chirinda, 2012). HIV transmission is largely due to heterosexual contact, which in turn is largely due to unprotected sexual intercourse. Sexual activity and unprotected sexual intercourse among adolescents, as with the global data (Bearinger et al., 2007), is evidenced in the rates of pregnancies and STIs, including HIV.

South Africa has high rates of teenage pregnancies (Pettifor et al., 2005a). Mchunu et al. (2012) conducted a cross-sectional and population-based household survey in South Africa among 3 123 young men and women aged 18 to 24. They assessed self-reported adolescent pregnancies (in the 12–19 age group) among females and whether males reported impregnating a woman. The sample they investigated was mainly black African females. Their results showed 19.3% women reporting an adolescent pregnancy and 5.8% men reporting having impregnated a girl during adolescence. Most women (74.1%) reported an unwanted pregnancy. Most females surveyed (74.1%) reported a lack of knowledge about pregnancy, with 55% reporting not knowing about the risks involved in having sex. Approximately one in five females (19%) reported becoming pregnant to "prove their maturity or identity" (Mchunu et al., 2012, p. 429).

In 2011, the South African Antenatal Public Health Survey of HIV tracked the prevalence of three main sexual risk factors among pregnant women and adolescent girls (NDoH, 2012). These risks include pregnancy, HIV, and syphilis. Participants were selected from 1 445 antenatal care sentinel clinics across all nine provinces in South Africa. Overall, 33 446 women aged younger than 15 to over 50 participated in the survey. Adolescents aged 15–19 accounted for 18.8% (n = 6 289) of the overall sample. Overall, the prevalence of syphilis decreased from 1.4% [1.1, 1.7] in 2010 to 1.3% [1.0, 1.7] in 2011 among 15 to 19-year-old pregnant adolescent girls.

In 2003, the Reproductive Health Research Unit (RHRU) conducted a cross-sectional population-based household survey among 11 904 individuals aged 15–24 to investigate HIV prevalence and associated risks among young people in South Africa (Pettifor et al., 2005b). This study will be referred to as the RHRU Youth Survey. The investigators used a multi-stage stratified cluster sampling approach (Pettifor et al., 2005b). The study was conducted in KwaZulu-Natal, Mpumalanga, the Eastern Cape, and Gauteng Provinces to provide an urban-rural representation of South Africa. HIV prevalence was 15.5% [13.7, 17.6] and 4.8% [3.9, 5.9] among 15 to 24-year-old women and men respectively (p <0.01). HIV infection among these young men and women was associated with being black African, living in an urban area, being older, and not having completed high school. Women who reported "an unusual vaginal discharge in the past 12 months" were 1.8 [1.3, 2.4] times more likely to be HIV infected. Males who reported genital ulcers in the past 12 months were more likely to be HIV infected [adjusted odd ratio [(*AOR*) 1.91, CI: 1.04, 3.49]. Nearly half (48%) of 15 to 19-year-old adolescents reported sexual activity (vaginal or anal) ever, with more girls than boys reporting sexual activity in the past 12 months. Condom use among the RHRU Youth Survey participants was reported among 57% and 48% of young men and women respectively (Hendriksen, Pettifor, Lee, Coates, and Rees, 2007). A third of sexually experienced adolescent girls (aged 15–19) reported ever having been pregnant.

2.4 Sexual and behavioral risk and protective factors for HIV among adolescents in South Africa

In this section I shall discuss the multiple levels of influence on risk and protective factors for HIV acquisition among adolescents in South Africa as addressed in Bhana and Petersen (2009). The multilevel influence will include individual, interpersonal, community and societal influences. High-risk behaviors typically occur as a result of the intersection between these different levels (Bhana and Petersen, 2009). Gender and age have an influence at all levels and will be integrated accordingly. A disadvantage of the research conducted in South Africa is that adolescents are typically included in the general adult sample or within the 15 to 24-year age group. Few researchers have investigated risk for HIV among the adolescent population independently (Dietrich et al., 2013; Harrison et al., 2012; Miller et al., 2013; Thurston et al., 2014).

2.4.1 Individual level risk factors.

According to Bhana and Petersen (2009, p. 58), risk and protective factors at the individual level are physical and psychological, which "may be a product of genetic and and/or socio-environmental factors".

2.4.1.1 Mental health.

Mental health plays an important role in an adolescent's self-belief about his or her own self worth and abilities (Bhana and Petersen, 2009). According to Bhana and Petersen (2009), the role of mental health is important as the adolescent develops the ability to monitor his or her

behavior and emotions. These factors come into play as adolescents navigate sexual encounters by the decisions they make about whether or not to engage in sexual activity and in negotiating condom use.

For this study, mental health will focus on depression. There is a dearth of literature in South Africa focusing on the association between depression and risk for HIV overall, specifically among adolescents. Such research, where available, show mixed results about the association between mental health and risk factors for HIV (Nduna, Jewkes, Dunkle, Shai, and Colmen, 2010; Peltzer, 2004; Smit et al., 2006).

Nduna et al. (2010) conducted a longitudinal study among 1 294 female and 1 288 male 15 to 26-year-old participants and found a prevalence of 21.1% [18.9, 23.3] and 13.6% [11.7, 15.5] of depressive symptoms respectively. They analyzed risk for depressive symptoms by gender. For females, depressive symptoms were associated with having experienced incidents of physical or sexual intimate partner violence, dating a partner three or more years older, having a greater likelihood over the following 12 months of having transactional sex, and experiencing further intimate partner violence (Nduna et al., 2010). For males, depressive symptoms were associated with ever having had transactional sex, intimate partner violence perpetration, and perpetration of rape. Men with depressive symptoms were less likely to report correct condom use at last sex in the 12 months following. The results by Nduna et al. (2010) show depressive symptoms to be associated with risk factors for HIV. Perpetration of intimate partner violence and rape perpetration is particularly concerning, because males control condom use in these situations.

2.4.1.2 Condom use and its predictors.

Unprotected sexual activity, that is, sexual activity without a condom, accounts for the majority of HIV infections among adolescents and young people in South Africa (Shisana et al., 2009). While both male and female condoms are available in the country, male condoms are more widely promoted and accessible (Shisana et al., 2009). The South African government, through its mass HCT campaign in 2010–2011, distributed more than 400 million male condoms (Mhlongo et al., 2013).

The female condom is a female-controlled prevention method that provides 94–97% protection against the transmission of HIV if used correctly (Guerra and Simbayi, 2014). However, the female condom is not promoted to the same extent as is the male condom and is not available at all public health facilities. Guerra and Simbayi (2014) investigated knowledge and use of the female condom among 4 551 sexually active females older than 15. They found knowledge about the female condom to be high (78%) but usage extremely low (7%).

Studies prior to 2008 showed infrequent condom use during sexual intercourse among young people in South Africa (Eaton et al., 2003; MacPhail and Campbell, 2001; Macleod and Weaver, 2003). Findings from the RHRU Youth Survey showed 57% males and 48% females aged 15–24 having reported condom use at last sex (Pettifor et al., 2005b). Hendriksen et al., (2007) assessed predictors of condom use at last sex by gender using the RHRU Youth Survey. For both males and females, condom use was associated with having used a condom at sexual debut, having talked to a first sexual partner about using condoms, high condom use self-efficacy, and reporting behavior change because of HIV/AIDS. Additionally, high optimism and knowing someone who had died of HIV/AIDS predicted condom use at last sex among males.

Recent studies show mixed findings as to whether self-reported condom use at last sex increased or decreased (Dinkelman, Lam, and Leibbrandt, 2007; Harrison et al., 2012; Hendriksen et al., 2007; Shisana et al., 2009). In 2012, Shisana et al. (2014) found significantly higher reporting of condom use among young people aged 15–24 since 2002. However, despite higher levels of reported condom use among young people [58%, CI: 55.3, 61.4], condom use among this group has, in fact, decreased since 2008. In 2008, 87.4% young men and 73.1% young women surveyed reported condom use at last sex. In 2012, 67.5% young men and 49.8% young men surveyed reported condom use at last sex. Shisana et al. (2014) point out that the decrease in condom use among young people in South Africa might be due to more accurate self-reporting and behavioral disinhibition as a result of available and accessible antiretroviral treatment in South Africa.

Harrison et al. (2012) found lower reporting of condom use at last sex among 983 participants aged 14 to 17 in Kwazulu-Natal. Condom use was 46.1% [42.98, 49.22] for the overall sexually active sample (n = 173). Condom use at last sex was 46.5% [41.79, 51.21] and 45.5% [41.34, 49.66] among males and females respectively. The strongest predictor of condom use was discussion with a partner about condom use among boys (*OR*: 7.39) and girls (*OR*: 5.58) (p <.0001).

During adolescence, self-efficacy is important for adolescents to engage in safer sexual activity through condom use. Self-efficacy is defined as “an individual’s belief in his or her capacity to engage in the behaviors necessary to attain specific goals” (Hendriksen et al., 2007, p. 1241). Among adolescents, high self-efficacy for condom use is particularly important to reduce exposure to HIV. Hendriksen et al. (2007) conducted secondary data analysis among sexually experienced participants in the RHRU Youth Survey. They found that male and female

participants with high condom self-efficacy were 1.64 and 1.60 times respectively more likely to have used a condom at last sex.

Condom use is associated with partner type and number of partners. Multiple sexual partnering occurs when an individual has more than one sexual partner (Zembe, Townsend, Thorson and Ekstrom, 2012). According to Leclerc-Madlala, Simbayi and Cloete (2009), the incidence of multiple and concurrent sexual partnerships in South Africa is closely linked to the practice of traditional polygyny in many African countries. The risk of having multiple sexual partners is concurrency. Multiple and concurrent sexual partnering is a risk factor for HIV (Mah and Halperin, 2010). However, having multiple sexual partners is only a risk for HIV transmission if condom use is inconsistent and if a partner is infected with HIV. More men than women report multiple and concurrent sexual partnerships (Leclerc-Madlala et al., 2009; Mah and Halperin, 2010).

Zembe and colleagues (2012) investigated condom use among 259 black women aged 16 to 24 with multiple sexual partners from a low socio-economic and peri-urban setting in the Western Cape Province of South Africa. HIV prevalence among this sample was 15%; 12% [5.3, 22.0] among the 20–24 age group and 5% [4.1, 6.5] among the16–19 age group. All participants reported having a main sexual partner and an average of seven multiple partners in the past three months. Most participants (85%, n = 211) reported concurrent sexual partners in the past three months. Participants reported highest condom use with once-off partners (71%, n = 145). For main partners, participants reported lowest prevalence of condom use (19%, n = 50). Participants reported 45% (n = 115) condom use with casual partners. Adolescent girls aged 16–19 were less likely to report condom use with a once-off partner. These findings indicate high-risk sexual behaviors among women who report multiple and concurrent sexual relationships.

Condom use is also influenced by the conception of masculine gender identity (Campbell, 2001; Scalway, 2001; Jama Shai, Jewkes, Nduna, and Dunkle, 2012; Jewkes et al., 2001). Masculine gender identity includes ideas and attitudes towards gender norms. For instance, researchers reported an association between non-use of condoms and virility among young men (Campbell, 2001; Jewkes et al., 2001). Jama Shai et al., 2012) investigated attitudes about masculinity among a sample of 1 219 males aged 15–26. They found 66.8% [62.9, 70.6] ever having used a condom with almost half of these males never having used a condom in the past year. Among those who used a condom, 15.4% used condoms consistently while 36.9% were inconsistent users of condoms. In multivariate regression, inconsistent condom users held more conservative views about gender and were more controlling over partners than consistent and never users.

Qualitative research investigating barriers of condom use among adolescents indicated various reasons for infrequent and non-use of condoms. The non-use of condoms was associated with trusting one's partner (Selikow, Ahmed, Flisher, Mathews, and Mukoma, 2009; Jewkes, 2009), preferring natural sexual intercourse (Selikow et al., 2009), having controlling partners, and females having to prove their investment in the relationship with their partners (Wood and Jewkes, 1997). Young women have less power and control over the use of condoms compared with young men (Jewkes, 2009).

2.4.1.3 Substance use.

For this study, substance use will include use of alcohol and recreational drugs. Reducing the use of substances among South Africans is an important goal of the NSP (2012–2016). The use of alcohol and recreational drugs impairs judgment related to decision-making, which often

results in sexual disinhibition and risky sexual behaviors, including unprotected sexual intercourse (Ramsoomar, Morojele, and Norris, 2013). Researchers have found intrapersonal differences in substance use by age, gender, grade level, race, and mental health among adolescents in South Africa (Brook et al., 2006; Reddy, Resnicor, Omardien, and Kambaran, 2007; Saban, Flisher, and Distiller, 2010). At the interpersonal level, peers, parents and significant others (teachers and ministers) play an important role in influencing individual substance use among adolescents (Onya, Tessera, Myers, and Flisher, 2012).

Alcohol consumption among adolescents in South Africa is particularly high. The WHO Global Status Report on Alcohol and Health (WHO, 2014) showed that South Africans older than 15 years consumed 27 liters of alcohol in a year. Findings from the second South African youth risk behavior survey (2008) showed 49.6% [46, 53.2] of 10 270 school-going adolescents aged 13–19 had ever used alcohol and 34.9% [31.9%, 38%] having consumed alcohol in the past month. Another study conducted in a rural area of South Africa showed 22% of 1 600 high school adolescents (age not stated) surveyed from Grade 9–11 reported ever having used alcohol, with a quarter reporting substance use problems in their family (Ramsoomar et al., 2013). Males were 2.4 times more likely to use alcohol than females (Ramsoomar et al., 2013).

2.4.1.4 Early sexual debut.

For this study, early sexual debut will be defined as sexual activity before the age of 15 (Peltzer, 2010; Pettifor et al., 2009; Shisana et al., 2009). Adolescents who initiate sex earlier are more likely to know less about HIV prevention and less likely to use condoms (Tenkorang, Rajulton, and Maticka-Tyndale, 2009). Early sexual debut has also been found to be associated with forced first sexual experiences among adolescent girls and young women (Dunkle et al.,

2004a). Furthermore, early sexual debut is often associated with frequent sexual intercourse, irregular contraceptive use, more sexual partners, and unplanned pregnancies (Donenberg, Bryant, Emerson, Wilson, and Pasch, 2003; Geary et al., 2008; Koenig et al, 2004; Pettifor et al., 2004b; Pettifor et al., 2009; Tenkoreng et al., 2009). These sexual and behavioral risks increase the exposure for HIV acquisition; thus the postponement of sexual debut is a distal indicator in the progress made towards meeting the set national 50% target to reduce HIV prevalence among adolescents and young people (NSP, 2012–2016).

The fourth national household survey conducted by Shisana et al. (2014) showed that 10.7% of young people aged 15–24 had their sexual debut before 15 years of age. Young men were three times more likely to report early sexual debut compared to young women ($p < 0.001$). Specifically, 16.7% [14.1, 19.8] boys aged 15–24 reported sexual debut before the age of 15, compared to 5.0% [3.8, 6.6] girls in the same age group ($p <0.001$). There was a significant increase in the reporting of early sexual debut among 15 to 24-year-old boys since 2008 (11.3%) ($p <0.001$).

In South Africa, sexual debut may vary by region. Studies conducted in various parts of South Africa show similar findings as reported by Shisana et al. (2014). Pettifor et al. (2005b) reported the median age of first sex to be 16 for males and 17 for females in a national household study. Similarly, Mah (2010) reported an average age of sexual debut of 16.7 years in a study conducted among young adults aged 16–26 in the Cape Metropolitan Area.

2.4.2 Interpersonal level risk factors.

These factors include parent/caregiver-adolescent relationships, school connectedness, peer influence, and sexual intimate partner violence.

2.4.2.1 Parent-adolescent relationships.

Researchers propose parent death to be associated with HIV among young people (Operaria, Pettifor, Cluver, and MacPhail, and Rees, 2007; Richter, Stein, Cluver, and de Kadt, 2009). Parent death is difficult for any child, regardless of age, but is particularly difficult for younger children who are dependent on parents for meeting their basic needs (such as food, shelter, and clothes) (Shisana, Zungu, and Pezi, 2009; Richter et al., 2009). According to UNAIDS (2008), at least 2.8 million children in South Africa have lost one parent, with almost half such deaths due to AIDS. In the fourth population based household survey, those children (18 years and younger) with a deceased parent were 3.5 times more likely to be infected with HIV (p <0.001) (Shisana et al., 2014).

Findings from a nationally representative study among 11 904 young South Africans aged 15 to 24 (Pettifor et al., 2005b) showed almost a third of the participants (27%) having reported the death of a parent, with 22% having a deceased father, 8% a deceased mother, and 3% two deceased parents (Operario et al., 2007). Their findings showed an association between parental death and HIV status among female participants. For males, parental death was associated with ever having had vaginal sex and unprotected last sex. These study findings showed that the loss of one or both parents to potentially pose an independent risk for HIV infection among young female South Africans while being a risk factor for sexual risk between both sexes.

2.4.2.2 Parenting practices.

Three main constructs of parenting practices are consistently associated with adolescents'

sexual behaviors: parent-adolescent connectedness, parental monitoring, and parent/caregiver–adolescent communication about sexual and reproductive matters (Borawski, Ievers-Landis, Lovegreen, and Trapi, 2003; Perrino, Gonzalez-Soldevilla, Pantin, and Szapocznik, 2000). Authoritative parenting has been shown to be protective against sexual risk behaviors and teenage pregnancies by facilitating individual level influences of greater self-control, resistance to peer influence, and decreased psychological distress (Bhana and Petersen, 2009). According to Starrels (1994), a child's relationship with a father and a mother is different, especially with regard to the child's gender.

2.4.2.3 Parent/caregiver-adolescent communication about sexual and reproductive health.

Parent-adolescent communication occurs at the interpersonal level (between parent and adolescent), but is influenced by community norms, cultural influence, mass media, and the laws of a country. Evidence relating to parent-adolescent communication about sexual health as protective is inconclusive. Some international studies show parent-adolescent communication about sexual health to be associated with contraceptive use, including condom use at first sexual intercourse (Hutchinson and Cooney 1998; Namisi et al., 2013) while others showed this communication to be associated with earlier sexual debut, increased sexual activity, and infrequent condom use. However, parental monitoring was found to be an influential variable that appears to be independent of parent-adolescent communication about sexual health (Borawski et al., 2003; Wight, Williamson, and Henderson, 2006). Wight et al. (2006) showed that low levels of parent monitoring predicted sexual activity among adolescents, with increased risk behaviors among adolescent girls. According to Hyde et al. (2013), parent monitoring may

be indicative of the level of involvement parents have with their adolescent children as well as parenting styles that protect against risky sexual behaviors.

Namisi et al. (2013) conducted a multi-site randomized controlled trial to investigate predictors of communication about sex with significant adults among 6 251 high school students aged 12 to 15 from 40 schools in South Africa and Tanzania. A consistent condom user answered "yes" to using a condom at first sex, "yes" to using a condom whenever the participant and a partner had sex, and "no" to never using a condom with a partner. Higher communication with significant adults about sex was protective and predictive of consistent condom use. Lower communication was associated with inconsistent and non-use of condoms.

2.4.2.4 School connectedness.

School connectedness is defined as the extent to which adolescents "feel personally accepted, respected, included, and supported by others in the school social environment" (Goodenow, 1993, p.80). This connectedness extends to peers and teachers. The school environment plays an important part in facilitating short-term and longer-term protection against risk among adolescents. Education provides adolescents with greater opportunities and earning potential, which is especially beneficial for adolescents from impoverished households. The school context can be protective for the "social, psychological, and physical wellbeing of adolescents" (Govender et al., 2013, p. 615).

2.4.2.5 Peer influence.

Peer influence plays an important role in mediating risk sexual behaviors, including

sexual debut and condom use, among adolescents. According to Brook et al., (2006), peer influence is the strongest mediator of high-risk sexual behavior among adolescents. Adolescents become affiliated with peer groups, which leave them exposed to peer pressure. Peer pressure can be negative or positive. The role of peer pressure is also influenced by gender. For instance, peer pressure is more likely to influence alcohol use among adolescent males (Iwamoto and Smiler, 2013). Harrison et al. (2012) conducted a study among 983 adolescents in Kwazulu-Natal, South Africa, aged 14–17. They found sexual debut and condom use among males to be associated with perceptions of male peer behavior.

2.4.2.6 Sexual violence.

For this study, sexual violence will include coerced sexual experiences and sexual intimate partner violence. Forced or coerced sexual experiences and sexual intimate partner violence is associated with HIV risk behaviors among women and adolescent girls in South Africa (Dunkle et al., 2004b; Jewkes et al., 2010). Coerced sexual experiences, including verbal coercion, refers to unwanted sexual experiences. Sexual intimate partner violence refers to vaginal or anal intercourse due to "unwanted sexual advances, verbal coercion or pressuring, threats of injury, or physical force by an intimate partner" (Stockman, Lucea, and Campbell, 2013, p. 834). "Partner" includes a current or previous sexual spouse, boyfriend, or a same sex partner (Stockman et al., 2013). Sexual intimate partner violence is usually associated with physical intimate partner violence while coerced sexual experiences are associated with child sexual abuse (Stockman et al., 2013).

South Africa has high rates of sexual violence towards women (Jewkes, Nduna, Jama Shai, and Dunkle, 2012). Jewkes et al. (2006) investigated sexual violence perpetration amongst

a sample of 1 370 young men aged 15 to 26 from the Eastern Cape in South Africa. Their results showed that 16.3% [14.1, 18.4] had raped a non-sexual partner or was part of a gang rape and 8.4% [6.7, 10.1] having perpetrated sexual intimate partner violence. Risks for HIV associated with coerced sexual experiences and sexual intimate partner violence include early sexual debut, having male partners older than five years (Dunkle et al., 2004a), transactional sex (Dunkle et al., 2004b), STIs (Maharaj and Munthree, 2007), and lack of condom use (Pettifor et al., 2009). Women and young girls who experience forced sexual experiences are vulnerable because they often have no power to negotiate safer sexual practices (Voisin, 2005). Several studies in South Africa indicate child abuse and forced sex to contribute to early sexual experiences among girls (Campbell and MacPhail, 2002; Eaton et al., 2003; Pettifor, O'Brien, Macphail, Miller, and Rees, 2009).

2.4.3 Community and societal level risk factors.

Intergenerational sexual relationships and transactional sex occur globally; however, adolescent girls and young women are particularly vulnerable in South Africa as a result of the high HIV prevalence.

2.4.3.1 Intergenerational sexual relationships.

Intergenerational sexual relationships are common in South Africa. An intergenerational sexual relationship is usually defined as having a sexual relationship with a partner who is at least five years older (Hallman, 2004; Hope, 2007; Leclerc-Madlala, 2008; Shisana et al., 2009). Intergenerational sexual relationships increase the risk of HIV infections among adolescent girls because such relationships are often associated with infrequent condom use (Shisana et al.,

2009). According to the fourth South African National Household Survey of 2012 19.8% girls aged 15–19 reported having an intergenerational sexual partner (Shisana et al., 2014).

Girls engage in intergenerational relationships for many reasons, including survival sex, materialism or consumerism, emotional security, and social status (Shisana et al., 2009; Leclerc-Madlala 2008; Hope, 2007). Girls involved in intergenerational sexual relationships may or may not be in a position of lower power compared with their older male partners. This power dynamic, together with potentially transactional relationships, may decrease their ability to successfully negotiate safer sexual practices (Leclerc-Madlala, 2008; Shisana el al. 2009; Hope, 2007).

The context of autonomy in an intergenerational sexual relationship is complex. At the one extreme, adolescent girls may voluntarily engage in an intergenerational relationship, while on the other (extreme) end, girls may be coerced. Girls who select older partners are still at higher risk compared to girls with sexual partners from their own age group. There is an inherent power disparity between an adolescent girl and an older man in terms of age and sexual experience (Weissman et al., 2006).

2.4.3.2 Transactional sex.

In this study, transactional sex is defined as exchanging sex for money or gifts. Those providing the money and gifts are typically referred to as a "sugar mommy" or "sugar daddy" (Shisana et al., 2009) with the latter being better described in the South African literature (Dunkle et al., 2004b). Transactional sex is a risk factor for HIV because it is presumed that women who have "sugar daddies" will have lower relationship power and consequently less power to negotiate or insist on condom use. Transactional sex usually occurs between young

women and wealthier and older men. However, the literature shows an increase in the reporting of transactional sexual relationships between young men and older woman (Kuate-Defo, 2004).

In South Africa, a discussion about transactional sex cannot be separated from the effects of poverty. There is much debate about the association between poverty and risk for HIV (Greener, 2008; Shisana et al., 2009). However, in a nationally representative study conducted among 4 120 young people aged 15 to 24, HIV prevalence was highest among those living in urban informal settlements [17.8%, CI: 13.7, 22.9], versus those living in urban formal housing [6.9%, CI: 5.3, 8.9] (Shisana et al., 2005). Type of housing was a proxy for socio-economic status, with lower socio-economic status being informal housing. Socio-economic status among young people and adolescents is a risk factor for transactional sex because this population may exchange sex to gain financial support for themselves and their families.

2.5 HIV prevention strategies for adolescents

Risk factors for HIV are complex in the South African setting. Prevention programs for adolescents have to be tailored to include multiple levels of influence. Available HIV prevention strategies for adolescents include behavioral, structural, and biomedical interventions (Cowan and Pettifor, 2009; Pettifor et al., 2013) with no single strategy showing full protection against HIV (Walensky, 2013). Current research agendas for adolescents propose a multiple prevention strategy that include a combination of partially effective prevention interventions (Cowan and Pettifor, 2009; Pettifor et al., 2013). These interventions will be discussed in terms of behavioral, structural, and biomedical interventions.

2.5.1 Behavioral HIV prevention programs in South Africa.

To date, there are no behavioral HIV prevention interventions that have significantly reduced HIV incidence in South Africa. Many interventions reduce risk factors for HIV, including sexually risky behaviors, pregnancy, and STIs. This section will discuss HIV prevention programs that have been developed or adapted for older adolescents in South Africa within the context of individual level, school-based, peer-based, family, and large-scale community and societal interventions.

2.5.1.1 Individual level behavioral interventions.

Individual level behavioral interventions for adolescents and young people have not shown success in reducing HIV incidence in South Africa. These include behavioral interventions that focus on improving individual behaviors. The Abstain, Be Faithful and Condomize campaign is an example of an individual-focused intervention that has had little success in changing individual adolescent decision-making and behaviors (DiCenso, Guyatt, Willan, and Griffith, 2002). Individual level interventions are criticized for excluding the influence of the social, political, cultural, and environmental factors of risk for HIV (Lesch, Kafaar, and Kagee, 2009).

2.5.1.2 Project Respect's individual level counseling.

As stated in Chapter One of this thesis, Project Respect was a multi-center and randomized controlled trial that enrolled 5 758 HIV negative participants (Kamb et al., 1998) from public STI clinics in the United States. Participants were assigned to one of four face-to-face interventions: enhanced counseling, brief counseling, and two didactic messaging arms. The

Project Respect main study outcomes were 100% self-reported condom use at three and six months post intervention and a reduction in laboratory confirmed STIs at six and twelve months post intervention. Messaging for all interventions encouraged condom use for vaginal and anal sex with all sexual partners.

Both the enhanced counseling and brief counseling interventions achieved significantly higher self-reported 100% condom use and a significant reduction in new STIs, compared to the didactic messaging (Kamb et al., 1998). There was a 30% reduction at six months and 20% reduction at twelve months of new STIs for both the enhanced and brief counseling conditions. Overall, there was no significant difference amongst men and women in terms of the reduction of STIs; however, adolescents and those participants (adults and adolescents) who had an STI at baseline had a greater reduction in STIs.

Rhodes, Stein, Fishbein, Goldstein and Rotheram-Borus (2007) investigated the underlying theoretical components of the enhanced counseling and brief counseling interventions. Enhanced counseling was informed by the integrative model of health behavior prediction, which incorporated aspects of the theory of reasoned action (Ajzen and Fishbein, 1980), the health belief model (Noar, 2005), and social cognitive theory (Bandura, 1977). Activities for enhanced counseling focused on improving self-efficacy to use condoms, encouraging a positive attitude toward condom use, and setting expectation of condom as normalized amongst partners and peers. Brief counseling was informed by aspects of the integrative model of health behavior prediction, specifically, the health belief model and social cognitive theory. For the brief counseling intervention, counselors focused on a specific health belief (condom use) and increasing risk perception (Rhodes et al., 2007).

Rhodes et al., (2007) sought to investigate those components of the integrative model of health behavior prediction that predicted condom use three months after the intervention. Their findings showed that the integrative model of health behavior prediction successfully predicted reported condom use at three months amongst participants who had main and casual partners. Condom use intention was a strong predictor of actual condom use. There was differential prediction of the components for the integrative model of health behavior prediction. For main sexual partners components of the integrative model of health behavior prediction were associated with condom use intentions for men. In this instance, men had had higher self-efficacy to use condoms with main sexual partners.

2.5.1.3 Family-based intervention.

The Collaborative HIV/AIDS Prevention and Adolescent Mental Health Project (CHAMP) is an example of an intervention program that was adapted and pilot tested in South Africa with the target population (Baptiste et al., 2006; Bhana, McKay, Mellins, Petersen, and Bell, 2010). CHAMP is a developmentally timed intervention developed in the United States to reduce HIV risk among young people by promoting resilience among pre-teens and their families as well as strengthening the protective effect in a community (Bhana, Petersen, Mason, Mahintsho, Bell, and McKay, 2004). Tailoring the intervention to the local context led researchers to address parent-adolescent communication about sexual health, as well as high levels of stigma about HIV/AIDS (Baptiste et al., 2006). An innovation to the program in the South African context was the use of open-ended participatory cartoon narratives. This was developed because of low literacy levels and to facilitate small group participatory experiential learning. The intervention increased knowledge about HIV/AIDS amongst parents but not among

adolescents (Baptiste et al., 2006). Parents and adolescents were better able to talk about sensitive topics like sex. Both parents and adolescents exposed to the intervention had positive attitudes towards people living with HIV/AIDS.

2.5.1.4 School-based interventions.

Adult led school-based curricula have reduced sexual risk behaviors such as delaying sexual debut, secondary sexual abstinence, decreasing the number of partners, increasing condom use, and reducing reported pregnancies (Dente et al., 2005; Magnani et al., 2005; Smith et al., 2008), but not to the extent of successfully reducing the risk of HIV, other STIs, or even early pregnancies (Mavedzenge, Doyle, and Ross, 2011). Non-curriculum school-based interventions and peer-led school-based interventions showed weak evidence in reducing sexual risk behaviors amongst adolescents because of poor study designs, including small sample size and non-random assignment (Mavedzenge et al., 2011). Stepping Stones is an example of a school-based intervention and will be discussed in the next section.

2.5.1.5 Community level interventions.

Community-based interventions are geographically localized. Stepping Stones is an example of a school-based intervention delivered at the community level in South Africa. The program was first started in Uganda and has since been used in more than 100 countries (Welbourne, 1995). Stepping Stones is a 50-hour participatory HIV prevention program adapted for delivery over six to eight weeks within a community in the Eastern Cape. The original Stepping Stones intervention aimed to improve sexual health by building stronger and more gender equitable relationships by improving communication between partners (Welbourne,

1995). The South African Stepping Stones sessions covered aspects related to sexual health, including "sex and love", sexual behavior, and sexual risks (such as unwanted pregnancy, STIs and HIV), contraception (including condom use), gender-based violence, dealing with grief and loss, and communication skills (Jewkes et al, 2008). Same sex facilitators delivered the intervention to single sex groups on school premises after school hours. In this context, Stepping Stones was a school-based and community level intervention.

Jewkes et al. (2008) conducted a cluster randomized control trial among 1 360 males and 1 416 females aged 15–26 (mainly school going) to assess whether the South African Stepping Stones intervention reduced HIV and herpes simplex type 2 virus incidence. Participants were randomized to receive either the South African Stepping Stones program or a three-hour HIV and safer sex intervention. HIV incidence was determined through blood tests at baseline and at 12 and 24 months post intervention. The findings showed that the South African Stepping Stones did not have an effect on HIV incidence but on HIV risk factors. The South African Stepping Stones was shown to significantly reduce the herpes simplex type 2 virus by 33% among male and female participants over the two-year study period. Among males, there was a significant reduction in intimate partner violence. This finding is particularly critical, given the high rates of sexual violence toward women in South Africa. No randomized controlled trials specifically for school-going adolescents and young people in South Africa had to date evaluated behavioral interventions with biological outcomes. This was the first behavioral study to show an effect on the biological risk for HIV infection in South Africa. Herpes simplex type 2 virus is a co-factor for HIV infection.

2.5.1.6 Societal level interventions.

Interventions delivered at this level have been endorsed by the South African government, and may potentially reach all people in South Africa, even though young people and adolescents are the target population. LoveLife and Soul City are examples of societal level interventions specifically targeting young South Africans, including adolescents. LoveLife is South Africa's largest national HIV prevention program, launched by the South African government, South African non-governmental organizations (NGOs), and the private sector in 1999, with the aim of halving HIV incidence among young people aged 15 to 24 (http://www.loveLife.org.za). At the time of this study, the program consists of national multi-media awareness and education programs, which complements a nationwide program of education, outreach, clinical services, and support to adolescents and young people in South Africa. There is also a toll free help line available to all South Africans. The media campaign includes the use of television, radio, outdoor media, and print. Outreach workers visit remote areas and schools to conduct events. Young people called "ground breakers" conduct community mobilization and run loveLife programs nationally. The program includes reproductive health services for adolescents through a network of public sector clinics known as the National Adolescent Friendly Clinic Initiative (NAFCI) and life skills and clinical services through 16 national multi-purpose Youth centers (Pettifor et al., 2005a). Youth centers, also known as Y-Centers, are located within public health clinics and provide additional services. The Y-Center is a multipurpose youth center that is open six days a week from 12–6 pm and offers "positive lifestyle and sexuality training, sports and recreational activities, computer training, and a limited range of reproductive health and HIV clinical services" (Pettifor et al., 2005a, p. 973).

Pettifor et al. (2005a) conducted a quasi-experimental, community-based study to investigate the effectiveness of loveLife in reducing HIV prevalence, other STIs, and related risks among 15 to 24-year-old participants. Participants in intervention communities were randomized to receive one of two loveLife interventions: the Y-center intervention or the NAFCI intervention. Participants in the control communities had access to the standard of services provided by government-run public health services. Pettifor et al. (2005a) enrolled 8 735 young people aged 15–24 from 33 communities in South Africa. The participants completed a behavioral interview as well as testing for HIV, neisseria gonorrhea, and chlamydia trachomatis. Awareness of the loveLife program was high across all communities but the findings failed to show a statistically significant difference in terms of study outcomes between control and intervention communities (Mavedzenge et al., 2011). The loveLife program has been criticized for not showing evidence of halving the HIV incidence among its target population.

2.5.2 Structural level interventions.

Structural level interventions for HIV prevention are those that can be implemented at the societal level by the South African government. Structural level interventions include providing adolescent-friendly reproductive health services as stated in Section 2.5.3(a) for adolescents and alleviating poverty among particularly vulnerable adolescents. Poverty plays an important role in the lives of adolescents and young people in South Africa. In particular, women and girls from impoverished backgrounds are vulnerable to engaging in risky sexual behavior, dropping out of school due to pregnancy, marrying and planning pregnancies early, engaging in transactional sex, and commercial sex work (Lerclerc-Madlala, 2008).

Researchers have been investigating the provision of unconditional and conditional cash payments or transfers as part of a comprehensive package of services to reduce HIV risk behaviors among vulnerable households and adolescents (Heise, Lutz, Ranganathan, and Watts, 2013; Pettifor, MacPhail, Nguyen, and Rosenberg, 2012). Cash transfers can be used to incentivize desired behavior outcomes or through improving the financial situations of households or individuals. Cash transfers provide much needed financial support to vulnerable households and individuals and have been shown to be protective against HIV risk behaviors, specifically schooling (Bhana and Petersen, 2009; Robertson et al., 2013). Conditional cash transfers imply that payment of the money is dependent upon an individual adhering to specified conditions or performing a specified behavior (Robertson et al., 2013). Schooling has been a condition of many cash transfer payments because education is associated with many positive outcomes, including greater earning potential, a lower risk for HIV infection, and having fewer children (Bhana and Petersen, 2009). Unconditional cash transfers imply that the money is given without any conditions attached. Cash can be given to the household or to the individual.

In 2012, two on-going randomized controlled trials in South Africa were being conducted to test the efficacy of cash transfers in reducing HIV incidence and sexual risk (Pettifor, 2012; Karim, 2012). Pettifor (2012) is currently conducting a school-based conditional cash transfer trial among approximately 2 900 male and female adolescents aged 13–20 (Grade 8–11). For this study, the cash is given to the parent/guardian and to the child. Karim (2012) is currently conducting a school-based unconditional cash transfer trial among about 4 000 males and females aged 13 and older (Grade 9–10). These studies are intended to provide important comparative information to the South African government about the effectiveness of cash transfers in reducing HIV incidence in South Africa. The findings are also intended to provide

insight or evidence on how the South African government social grants are assigned and delivered. However, if found to be effective, the study findings will then have to be linked to rigorous cost-effective analysis (Gilmour, Hamakawa, and Shibuya, 2013).

2.5.3 Biomedical interventions.

2.5.3.1 HIV testing among adolescents in South Africa.

In South Africa, HIV counseling and testing (HCT) is a key strategy designed to prevent new HIV infections in the NSP on HIV, STI's, and TB (NDoH, 2012). HIV testing services are freely available in public health facilities in South Africa with specific adolescent-friendly health facilities for adolescents (Dickson, Ashton, and Smith, 2007). Routine HCT among young people is endorsed by WHO as a critical first step for prevention and an entry point for care and treatment services (Ramirez-Avila et al., 2012). Through accessing HCT, adolescents can be linked to risk reduction counseling, medical male circumcision, contraceptives, and post exposure prophylaxis (Shisana et al., 2009). HCT has been shown to reduce risky sexual behaviors among adults with resultant reductions in STIs (The Voluntary HIV-1 Counseling and Testing Efficacy Study Group, 2000; Lau, Tsui, Cheng, and Pang, 2009).

Many young people in South Africa are aware that HCT services are available and show an interest to test for HIV; however, only a small number has been tested for HIV (De Bruyn, Skhosana, McIntyre, and Gray, 2006; Francis, 2010; Mathews et al., 2009; MacPhail, Pettifor, Coates, and Rees, 2008; Hendriksen et al., 2007). According to Hendriksen et al. (2007), 7.5% [6.8, 8.1] of 5 687 young men and 15% [14.1, 15.9] of 6 217 young women reported being aware of their HIV status and 14.7% [13.8, 15.6] young men and 24.7% [23.6, 25.8] young women did an HIV test as part of study procedures. Various reasons have been identified for the low uptake of HCT among young people in South Africa, including fear of stigma, breech in confidentiality

at testing sites, and a lack of adolescent-friendly services as well as low HIV risk perception (De Bruyn et al., 2006; Horizons Program, 2001; Kibombo, Neema, Moore and Ahmed, 2008; Mathews et al., 2009; YouthNet, 2002). A cohort of 277 participants aged 10–25 from Soweto were interviewed to determine self-reported HIV testing status (De Bruyn, Skosana, Robertson, McIntyre, and Gray, 2008). Of the 241 participants who completed an HIV testing assessment, 10% reported ever testing for HIV; almost half (46%) of whom had not tested for HIV reported low risk perception of acquiring HIV as the main reason for not testing. These results indicate norms that perceptions of invulnerability among adolescents are high. In addition, the study did not assess sexual activity; therefore I cannot compare risk perception with sexual behavior.

2.5.3.2 Medical male circumcision.

WHO and UNAIDS have recommended medical male circumcision (MMC) for consideration as an important and additional intervention for HIV prevention (WHO, 2007) due to the findings of three randomized controlled trials (Auvert et al., 2005; Bailey et al., 2007; Gray et al., 2007). The risk of HIV was reduced by up to 60% among men in these three trials. Many studies show a strong association between male circumcision (traditional and medical) and reduced HIV prevalence (Weiss, Quigley, and Hayes, 2000). This is particularly evident in countries where HIV prevalence among males is associated with low levels of circumcision (Halperin and Bailey 1999; Moses et al., 1990).

Routine male circumcision across sub-Saharan Africa could prevent up to six million new HIV infections and three million deaths in the next two decades (Williams et al., 2006). According to WHO and UNAIDS, one HIV infection is prevented for every 5–15 MMCs carried out in South Africa (WHO, 2007). A study in Gauteng, South Africa, in 2005 concluded that if

full coverage of male circumcision was implemented in this area (with adult male HIV prevalence of 25.6%), 1 000 circumcisions would prevent an estimated 308 infections over the subsequent twenty years (Kahn, Marseille, and Auvert, 2006).

The South African NDoH has adopted MMC as part of a combination HIV prevention strategy to reduce HIV incidence among men. Both traditional and MMC is practiced in South Africa; however, MMC is preferred above traditional male circumcision because of the health risks posed by the latter for boys. Traditional male circumcision has drawn attention because of the serious health consequences, including mortality, for adolescent boys. Traditional circumcision is practiced among adolescents from the Xhosa, Ndebele, Pedi, South Sotho, and Venda ethnic groups in the context of an initiation ritual that marks the milestone of puberty (Lerclerc-Madlala, Simbayi, and Cloete, 2009). Traditional circumcisions have been criticized because such circumcisions are usually conducted by traditional circumcisers who use the same unsterilized instruments on several boys (Lerclerc-Madlala et al., 2009).

2.5.3.3 Pre-exposure prophylaxis (PrEP).

There is currently a global debate about the use of oral antiretroviral PrEP to prevent HIV transmission among high-risk HIV uninfected individuals (Gray and Martinson, 2012; Nadery and Geerlings, 2013). In Africa, PrEP was shown to be effective in reducing HIV acquisition among MSM (Grant et al., 2010) and sero-discordant couples (Cohen et al., 2011).

There are mixed findings about the effectiveness of PrEP and many unresolved questions that still have to be addressed among adults before research can be conducted among adolescents in South Africa. Nadery and Geerlings (2013) highlight concerns about using PrEP among HIV uninfected individuals, including the high cost and risk compensation. The long-term side effects

of PrEP are presently unknown and low adherence to PrEP, together with an acute HIV infection, may lead to a resistant virus. In South Africa, the effectiveness of PrEP is dependent on daily adherence to the drug among HIV uninfected individuals and drug availability in an already overburdened public health sector (Gray and Martinson, 2012). Gray and Martinson (2012) argue against the use of PrEP in South Africa because of limited data about the effectiveness of PrEP in reducing HIV acquisition among high-risk women.

PrEP may be a promising biomedical intervention in the future, but more extensive research is required to address the many unresolved questions. In particular, adherence is an aspect that requires more qualitative investigation to understand how adherence can be improved among high-risk populations. In the future, PrEP may be become available as part of a combination prevention strategy for adolescents.

2.5.4 Risk compensation in the context of biomedical interventions.

Risk compensation or behavioral disinhibition is an increase in risky behaviors due to poor risk perception (Cassell, Halperin, Shelton, and Stanton, 2006). Risk compensation can occur within the context of successful biomedical prevention interventions and preventive HIV trials that test biomedical technologies. Risk compensation is particularly concerning because of the recent successes of biomedical interventions in reducing new HIV infections (Cassell et al., 2006; Eaton and Kalichman, 2007). Researchers fear that individuals using these interventions or participating in preventative trials will assume low risk because of the intervention (Chesney, Chambers, and Kahn, 1997; Eaton and Kalichman, 2007).

Some researchers argue that MMC may not translate to the expected reduction in HIV incidence due to risk compensation among men and possibly their partners (Maughan-Browne

and Venkataramani, 2012). Circumcised boys and men may engage in riskier sexual behavior, including early sexual debut, lower condom-use, and multiple sexual partners (Greely, Maharaj, Letsoalo, and Miti, 2013). Maughan-Browne and Venkataramani (2012) argue that female partners may perceive MMC to be protective against male to female transmission and that their circumcised male partner may be HIV negative. There are currently mixed findings about risk compensation in sub-Saharan Africa, with research in South Africa indicating risk compensation among female partners (Maughan-Browne and Venkataramani, 2012).

Two studies assessed sexual risk compensation in the context of HIV vaccine trials (Chesney et al., 1997; Gray et al., 2013). Gray et al. (2013) conducted an analysis of sexual behavior among 801 South Africans who participated in a double-blinded randomized controlled Phase 2b prophylactic HIV vaccine efficacy trial. In the context of this trial, the concern was two-fold. First, participants assumed protection because of mere participation in the trial. Second, participants assumed protection by assuming they had received the vaccine and not the placebo. Participants received risk reduction counseling during study visits. Unprotected sexual behavior during the trial was compared with sexual behavior six months prior to unblinding and six months after unblinding of the study. The findings showed no evidence of risk compensation between participants who received the placebo, compared with those who received the vaccine. In fact, a third of the participants reported more protected sexual acts from the time of enrolment to the six-month time period prior to the unblinding of treatment arm. Post-unblinding, more men than women reported a decrease in unprotected sexual acts. Although participants in the study were not adolescents, the results still contribute to literature challenging risk compensation theories in general.

Chesney et al., (1997) found alternative results among participants enrolled in phase 1 and 2 HIV safety and immune response trials. Forty-eight HIV negative men and women aged were enrolled from these trials; most were gay or bisexual men. Participants received risk reduction counseling and were aware that the vaccine was not protective. Assessment of sexual risk, that is, unprotected anal intercourse, at baseline and during the trial indicated a higher proportion of participants engaging in risk taking during the trial. This increase was more likely among younger participants with multiple partners and who participated in the original vaccine trial because of hope of protection from HIV.

An HIV vaccine has not yet been tested among adolescents; therefore, there is no research about behavioral disinhibition among adolescent vaccine trial participants. These two studies show the importance of balancing individuals who may be at higher risk, with continued risk reduction counseling and closely monitored behavioral risk monitoring throughout the trial and not just at the end of trials.

2.6 Summary of Chapter

This chapter provided a review of the literature for adolescents and young people related to HIV prevalence, sexuality, and risk factors for HIV acquisition. These were discussed within the global, sub-Saharan Africa, and local contexts. Key biomedical, behavioral, and structural HIV prevention options for South African adolescents were discussed. The literature shows that adolescents and young people in South Africa are at risk for HIV infection. Despite advances in biomedical interventions, there is no behavioral intervention that has significantly reduced HIV incidence among this vulnerable population. Adolescents will in the future be a critical target population within which to roll out an efficacious prophylactic HIV vaccine. Investigators in

South Africa must therefore ensure that HIV risk reduction counseling is appropriate for likely adolescent participants of future HIV vaccines and other biomedical clinical trials.

Chapter Three

Theoretical Framework

3.1 Introduction

Two theoretical frameworks informed the present study presented in this dissertation. The larger NIMH study was framed within ecological systems theory (Bronfenbrenner, 2005), including phases 1 and 2 of the present study. For Phase 2 of the present study, I included the integrative model of health behavior prediction since it was used by the Project Respect study in the United States to develop the CDC risk reduction counseling intervention there.

3.2 Ecological Systems Theory

Bronfenbrenner (1989; 1994) initially theorized that individuals are influenced by various systems; this he based on observation that an individual's behavior would change based on their environment (Derksen, 2010). Therefore, an individual would be influenced by subjective and objective experiences in the environment (Bronfenbrenner, 2005). In my dissertation, I used Bronfenbrenner's modified version of the ecological systems theory, also known as the bio-ecological systems theory (Bronfenbrenner, 2005). In this later version of the ecological systems theory, Bronfenbrenner proposed that human development occurs through complex processes in an ecosystem (Lewthwaite, 2011). There is a reciprocal or transactional relationship between the various systems in the ecosystem, that is, the person and the larger social environment (Bronfenbrenner, 1994). The transactional nature of the ecosystem is such that there is always some transaction between the various systems; thus, a change in one system will affect other

systems. The systems are arranged in a hierarchical way, as shown in Figure 2, following, and include the: (a) microsystem, (b) mesosystem, (c) exosystem, and (d) macrosystem.

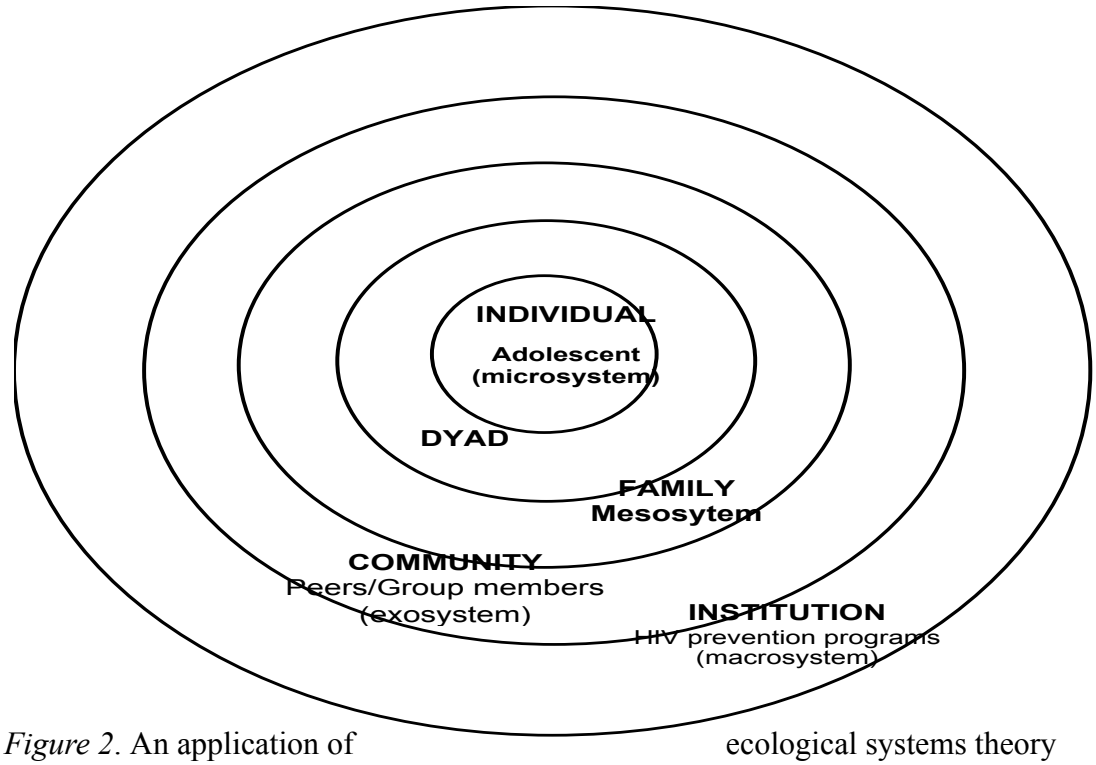


Figure 2. An application of ecological systems theory

3.2.1 Microsystem.

The microsystem is the most basic layer in the ecosystem and includes the biological and psychological make-up of the adolescent (Bronfenbrenner, 1994). Adolescents develop unique thoughts, feelings, and beliefs about their environment within the microsystem. At this level, they have interpersonal, social, and emotional needs and functions within the wider social environment, which includes a number of microsystems. According to Meyer, Loxton and Bolton (1997), it is critical to understand the daily environment of the adolescent. These daily

face-to-face interactions occur within many microsystems, including the home, school, and neighborhood.

Dyad relationships are included in this system, that is, relationships with friends, romantic and sexual partners, and parent-child relationships. These relationships can influence the adolescent in a positive or negative manner. For instance, differential power relationships with sexual partners may pose risks for sexual coercion, sexual abuse, and rape. Conversely, positive parent and/or peer relationships may result in the adolescent delaying sexual debut.

3.2.2 Mesosystem.

The mesosystem is the second layer and is located between the microsystem and the exosystem. The mesosystem is the interaction of the different microsystems. There is a symbiotic relationship with the social, physical, and biological environments that make up the mesosystem. Interactions between systems are bi-directional, in that, one influences the other. It is the mesosystem that will determine how the adolescent relates with the rest of the ecosystem. At this level, there is interaction between different microsystems. For instance, a friend of an adolescent may provide information about HIV that is in conflict with the values that a parent wishes for the adolescent.

3.2.3 Exosystem.

The exosystem is the third layer and constitutes the larger social system, including the extended family, the education system, the legal system, mass media, and/or community health services. Although the adolescent may not interact with this system directly, it will have a level

of influence. For example, an adolescent may be coerced or persuaded to engage in sexual activity by an older person, for who trust and authority is a culturally determined norm.

3.2.4 Macrosystem.

The macrosystem is the outermost layer and includes the broader political and cultural settings. This system has an overarching influence on all other layers in the ecosystem. The macrosystem has an influence on the customs, values, and laws of the society within which the adolescent lives. For example, the legislature on age of consent for sexual activity will determine what society perceives as an acceptable time for adolescents to begin engaging in sexual activities.

Bronfenbrenner proposed that there is mutual adaptation between individuals and their social and physical environments (Lewthwaite, 2011). The apartheid system is an example of political ideology that influenced the lives of South African adolescents at multiple levels. The aftermath of apartheid continues to affect black adolescents (The Children's Institute and Others, 2009). For example, in the apartheid era, people from different racial groups, as defined by the Population Registration Act (Number 30 of 1950), were geographically segregated (Group Areas Act No. 41 of 1950) so that black South Africans lived in poorly resourced communities, had few opportunities to advance to tertiary education, and few opportunities to acquire economic wealth (Zembe, Townsend, Thorson, and Ekstrom, 2013). According to Zembe et al. (2013), black South Africans continue to experience these effects in the post-apartheid period.

3.2.5 Application of ecological systems theory to the study aims.

The overall aim of ecological systems theory is to see how the adolescent functions

within his or her environment, and how the environment can be changed to meet the needs of the adolescent. To understand adolescent risk for HIV, one must understand the multiple levels of influence within which the adolescent develops (Bronfenbrenner, 1994). Each system may affect one or more systems, thereby influencing risk for HIV in direct, reciprocal, and/or synergistic ways. Rather than focusing on a single system, ecological systems theory takes into account a broader perspective of risk and examines multiple levels of influence. The variance in risk outcomes can be explained by the multilevel approach, compared to traditional individual-level factors (Dietrich et al., 2013; Flisher, Reddy, Muller, and Lombard, 2003; Puffer et al., 2011). Using the monograph edited by Lewthwaite (2011), ecological systems theory enabled me to identify the risk and protective factors that influence HIV acquisition. For the purposes of adapting the CDC risk reduction counseling intervention, it was also critical to assess what the adolescent could do to adapt to the environment.

Phases 1 and 2 of the present study were informed by the modified version of Bronfenbrenner's ecological systems theory (Lewthwaite, 2011). Risk factors for HIV were conceptualized within this theory so that the FGD content captured the four systems. In developing the questionnaire for Phase 1b, the research team selected variables that were critical to include by incorporating all four levels of ecological systems theory (see Table 1, following). In Phase 2, the CDC risk reduction counseling intervention incorporated the four ecological systems that could influence risk for HIV acquisition.

Table 3

Ecological model mechanisms included in Phase 1a and Phase 1b

Ecological systems levels	Variables/themes	Phases 1a, b
Individual level (Microsystem)	Demographic characteristics (age, gender, housing) Sexual behavior (sexual debut) Substance use Depression Experience of stressful events Experience of forced and unwanted sexual experiences	Phase 1 **Phase 1a, 1b** Phase 1b **Phase 1b** Phase 1a **Phase 1b**
Partners (Microsystem)	Dating during adolescence Age group of partner Number of partners Condom use amongst adolescents Adolescent girls dating older men Partner pressure to have sex **Pregnancy**	Phase 1a, 1b **Phase 1a, 1b** Phase 1b **Phase 1a, 1b** **Phase 1a** **Phase 1a, 1b** Phase 1a
Family (Microsystem)	Parents alive Parent-adolescent communication Parent-guardian support	Phase 1a **Phase 1a, 1b** Phase 1a
Interactions between microsystem relationships (Mesosystem)	Parents and school Parents and romantic/sexual partners Peers and romantic/sexual partners (group sex events) School and romantic partners	Phase 1a Phase 1a **Phase 1** Phase 1a
Community/peers (Exosystem)	Attitudes about sex and condoms **Perceptions about pregnancy** Views about homosexuality	Phase 1a **Phase 1a** Phase 1a
Institution (Macrosystem)	Role of the media Government laws Adaptation of the CDC risk reduction counseling intervention	Phase 1a **Phase 1a** Phase 2

3.3 Integrative Model of Behavior Prediction

The integrative model of behavioral prediction has been used successfully to develop HIV and STI interventions (Kamb et al., 1998). Specifically, the integrative model of behavioral prediction was used successfully in Project Respect to develop the CDC risk reduction counseling intervention. The integrative model of behavioral prediction is a general theory of

behavior prediction that can be used to understand any given behavior (Rhodes et al., 2007). The integrative model of behavioral prediction is predominantly based on the theories of reasoned action (Ajzen and Fishbein, 1980) and planned behavior (Ajzen, 1991; Rhodes, and Courneya, 2004) but also incorporates aspects of social cognitive theory (Bandura, 1977) and the health belief model (Noar, 2005). With specific emphasis on the former two theories, the integrative model of behavioral prediction proposes that a given behavior is primarily determined by intentions (Rhodes et al., 2007; Yzer, 2012). Intentions are then influenced by three proximal determinants: (a) attitudes, which are a function of beliefs about the positive and negative outcomes of performing a given behavior; (b) perceived expectations, that is, subjective norms, of significant others (peers, partners, parents), and institutions; and (c) perceived self-efficacy or capability to perform a given behavior (see Figure 3, following). Last, intentions are also influenced by contextual factors and competence to perform behavior.

3.3.1 Application of the integrative model of behavioral prediction to the present study.

The integrative model of behavioral prediction accounts for different health behaviors within a population and across populations (Yzer, 2012) so that effective health messages consider the context of the target population (Fishbein and Yzer, 2003). The present study incorporated all aspects of the integrative model of behavioral prediction. Figure 3, following, illustrates the link between the integrative model of behavioral prediction and ecological systems theory. Data from Phase 1 provided an in-depth understanding of adolescents in Soweto and evidence for aspects critical for consideration in tailoring counseling for this population.

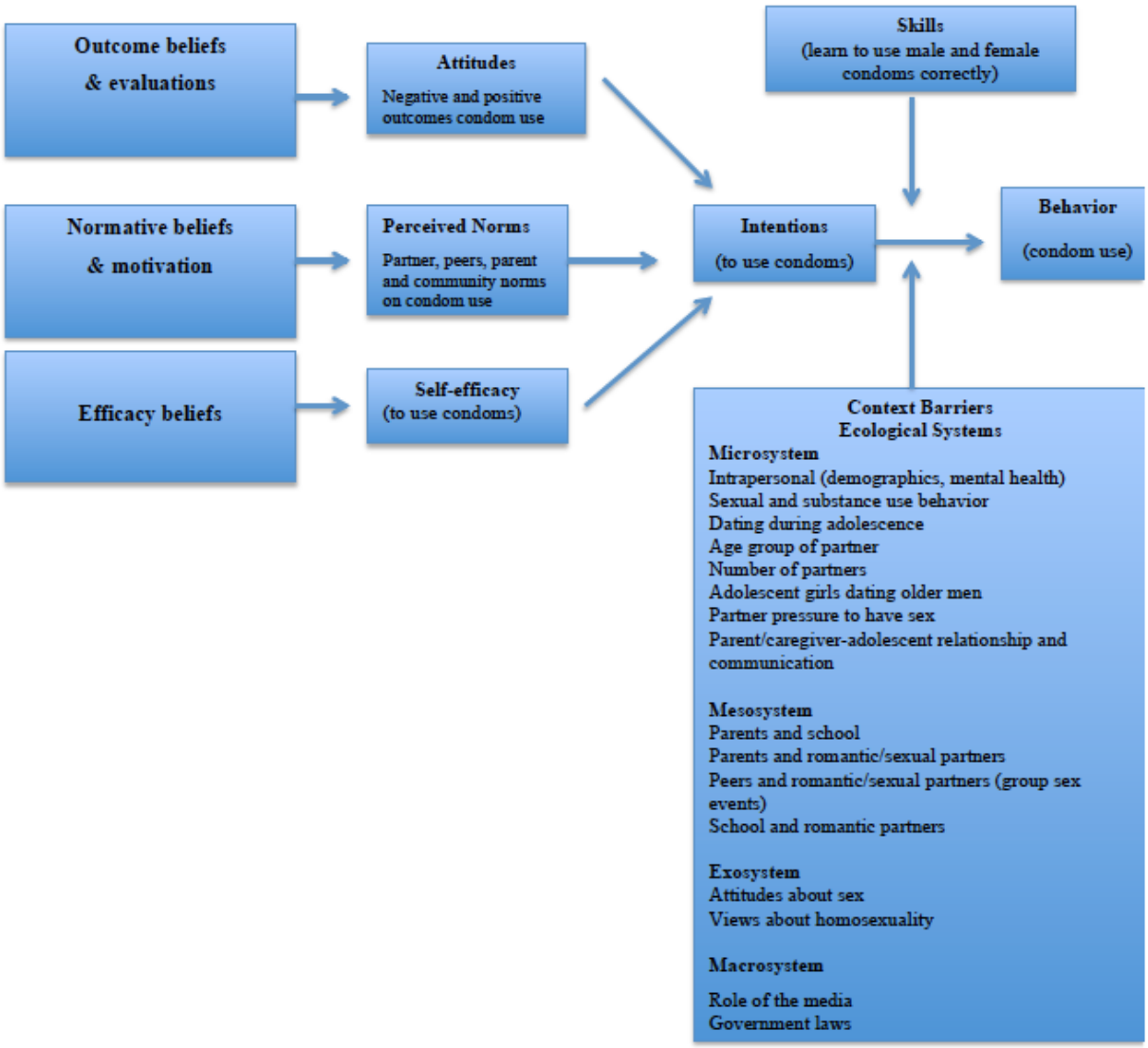


Figure 3. Illustration of the link between ecological systems theory and the integrative model of behavioral prediction

3.4 Summary of Chapter

Ecological systems theory and the integrative model of behavioral prediction inform the present study, with the two theories complementing each other. These theories will not be tested in the present study. Ecological systems theory allows for individualized risk reduction counseling by taking into account multiple levels of influence on risk for HIV acquisition. The integrative

model of behavioral prediction was specifically used to maximize the messages around condom use within the adapted CDC risk reduction counseling intervention. Ecological systems theory informed phases 1 and 2 of the present study. Risk factors for HIV were conceptualized within this theory so that the FGD content captured the four systems. In developing the questionnaire for Phase 1b, the research team selected variables that were critical to include by incorporating all four levels of ecological systems theory. In Phase 2, the CDC risk reduction counseling intervention incorporated both theoretical frameworks.

Chapter Four

Phase 1a: Focus Group Discussions

4.1 Introduction

This chapter will describe the methods and findings of Phase 1a of the present study. Phase 1a was qualitative, therefore participant demographic information will be provided as well as the key themes identified from the Focus Group Discussions (FGDs). Thereafter, a discussion of the findings will be presented.

4.2 Methodology

Phase 1a was qualitative. Data were collected via FGDs.

4.2.1 Setting.

Phase 1a of the study was conducted from 2008 to 2009 at the Perinatal HIV Research Unit (PHRU) (http://www.phru.co.za), situated in Diepkloof, Soweto as well as the Kganya Motsha Adolescent Center (KMAC), a division of the PHRU, situated in Kliptown, Soweto. As stated in Chapter One of this dissertation, the research for this doctoral study was located within the larger NIMH study. I worked within a research team and with PHRU study staff involved in the NIMH study. The research for the larger NIMH study was conceptualized by a research team that consisted of a pediatrician, a nurse, counselors, a social scientist, a clinical psychologist and social workers who work with adolescents. As stated in Chapter One, professors Glenda Gray and Kathleen Sikemma were the principal investigators of the NIMH study. The PHRU study staff included an administrator who also assisted with recruitment and fieldworkers who

implemented the research for this doctoral study. I was the social scientist on the research team and project leader for the PHRU study staff.

The PHRU is a division of the University of the Witwatersrand, situated at one of the world's largest hospitals, the Chris Hani Baragwanath Hospital, in Soweto, Johannesburg. The unit serves the population of Soweto, where it has a well-established relationship with the community; at the time of writing, it had been conducting research in Soweto for more than a decade. I work at the PHRU as the lead social scientist.

In 2008, KMAC was established as a stand-alone clinic for both in- and out-of- school adolescents aged between 14 and 19 years. It was established as a comprehensive HIV prevention and management program that provided HIV testing services to adolescents (and their partners), including identifying those requiring access to HIV care and treatment. Services included a school-based HIV testing program, pregnancy testing, STI screening and treatment, antiretroviral treatment (ART), and psycho-social counseling and support. KMAC closed in 2012 due to funding cuts.

4.2.2 Sample.

Members of the PHRU study staff used convenience sampling for the current study to recruit 80 participants: parents (n = 23) from Soweto who had adolescent children aged 16–18 years, counselors (n = 22) working with adolescents and adolescent boys (n = 20) and girls (n = 15) aged 16–18 years. The total sample, including all groups, comprised 80 participants.

4.2.2.1 Parents.

The PHRU study staff conducted two female-only FGDs and one male-only FGD, with

parents recruited via HIV South Africa (HIVSA). HIVSA (www.hivsa.com) is an organization in Soweto that once shared premises with PHRU. HIVSA is a non-profit organization (NPO) offering comprehensive therapeutic care to individuals and their families infected with and affected by HIV/AIDS. Parents were not tested for HIV to participate in the present study. However, it is reasonable to assume that some parents may have been infected with HIV or may have had someone in their families infected with HIV. This group of parents may have been different to other convenient samples because they were actively seeking assistance due to their own or a family member's HIV positive status. At the time the study was conducted, the PHRU had an established working relationship with HIVSA. Members of the PHRU study staff informed HIVSA staff members about the study, requesting the latter's assistance in recruiting parents for the study. With their agreement, the HIVSA staff members liaised with the PHRU study staff members to organize the FGDs. HIVSA staff members contacted participants telephonically to invite them to participate in the study once the PHRU study team arranged a time. Parents then came to the PHRU to meet with the PHRU study staff members to sign written consent forms and to participate in the FGDs. HIVSA approached 36 potential participants. Initially, the team intended to conduct a female-only and a male-only FGD; however, recruiting male parents proved difficult as fathers invited to participate did not arrive for the first planned FGD.

Members of the PHRU study staff described the study to the participants and requested they sign an informed consent form. The staff members also informed participants that they could withdraw from the study at any stage without any negative consequences to current or future care services sought at HIVSA or PHRU. Participants had the opportunity to ask questions before signing the informed consent form.

4.2.2.2 Counselors.

Members of the PHRU study staff conducted two mixed-gender FGDs with counselors, the latter who had experience conducting HCT with adolescents. A female psychology research intern on the PHRU study team identified seven counseling centers in Soweto, making contact with them telephonically to check if they conducted counseling with adolescents. The names of these centers are not provided in this study for confidentiality reasons. The research intern requested permission from center managers for members of their staff to participate in an FGD if it was found that the center provided services to adolescents. The research intern obtained permission from supervisors of seven Soweto centers conducting HCT. She received names and contact details of potential participants via the managers, and then contacted 24 such counselors telephonically to inform them about the study. Those who agreed to participate in the study received an invitation to attend an FGD. The counselors were assured that the information they shared would not be given to their managers or centers. All counselors agreed to participate, with the exception of two who were unavailable due to other commitments.

4.2.2.3 Adolescents.

Members of the PHRU study staff conducted two female-only and two male-only FGDs with 16 to 18-year-old adolescents recruited from the KMAC and HIVSA. They approached 48 potential participants to participate, 35 of whom participated in the FGDs. PHRU study staff further liaised with HIVSA to assist in recruiting adolescent participants. At the time, HIVSA conducted programs in schools in Soweto to inform learners about HCT. HIVSA staff members informed interested learners about the study. HIVSA staff members then telephoned learners interested in participating to arrange a suitable date and time for them to attend FGDs. As noted

in section 4.2.2.1, it is reasonable to assume that participants recruited from HIVSA may have been infected or affected by HIV. However, this information was not specifically collected in the recruitment process.

In addition, PHRU study staff members obtained a list of interested participants via KMAC. Participants recruited via KMAC were likely to have been different to the general adolescent population in Soweto, as they would have specifically gone to the KMAC for HIV testing and sexual and reproductive health services, thus indicating higher health seeking behaviors compared with the general adolescent population in Soweto. Members of the KMAC staff approached potential participants who visited KMAC and recorded their names and contact details if they indicated willingness to participate. Members of the KMAC staff passed on the names and contact details of the possible participants to the PHRU study staff members, who then contacted the potential adolescent participants telephonically to inform them of the study and to arrange a convenient time for the FGDs. Adolescents aged 18 years signed independent informed consent forms, while those aged 16 and 17 required parental consent.

4.2.3 Procedures for FGDs.

Members of the PHRU study staff conducted FGDs in private training rooms at the PHRU. Trained facilitators, conversant in the local languages, conducted FGDs using a semi-structured interview guide (Appendix A). There were 8–12 participants per FGD. PHRU study staff members matched facilitators for adolescent FGDs according to gender, and parent FGDs according to age. FGDs lasted two to three hours, with at least one break in the course of the session. Facilitators used digital audio recorders to record the FGDs. A study administrator provided participants with refreshments at the start of and during the course of each FGD

session. The same administrator provided participants with ZAR50 reimbursement for their transport and time. Arrangements were made for adolescent participants to be referred to the KMAC for initial counseling if they indicated distress as a result of the FGDs or if they indicated they required psycho-social support. None of the adolescents, parents, or counselors indicated distress as a result of participation in the FDGs.

4.2.4 Interview guides.

FGD guides (see Appendix A) were semi-structured, with open-ended questions to elicit discussions around adolescent sexual behaviors and practices with specific prompts for HIV-risk behaviors. FGD topics were guided by the work experience of the research team and literature on risk factors for HIV, framed within ecological systems theory. As stated in section 4.1.1 earlier, the research team consisted of a pediatrician, a nurse, counselors, a social scientist, a clinical psychologist, and social workers who worked with adolescents. The main topics of the FGDs were informed by ecological systems theory, which emphasizes the different systems that influence adolescent risk factors for HIV (see Table 1).

4.2.5 Data analysis.

Members of the PHRU study staff recorded FGDs with digital audio-recorders, transcribed the recordings of the sessions verbatim, and translated these into English. I then used Maxqda, a qualitative data analysis program, and manual coding to analyze the data (MAXQDA, 1989–2013). I worked with the psychology research intern to analyze the data. We used thematic analysis (Punch, 2009) to guide analysis of the data.

First, I read and re-read transcripts to familiarize myself with the data to start identifying preliminary codes (Dey, 1993). According to Dey (1993), this first step was important to gain an in-depth overall understanding of the data. The second step involved reducing the data by coding the transcripts. The research aims guided the coding and additionally allowed for the emergence of themes initially not considered by the research team.

For initial coding, I used an open coding method in which a line-by-line analysis assigned text to codes (Strauss, and Corbin, 1998). After coding the first two transcripts, I worked with the second analyst, the psychology research intern, to develop a codebook to group codes into sub-themes and then into broader themes. We specifically identified themes relating to perceptions about sexual behaviors and risk factors for HIV acquisition.

4.2.6 Trustworthiness of data.

Trustworthiness of qualitative research is the result of ensuring credibility, transferability, dependability, and confirmability (Guba, 1981). Guba (1981) rates credibility as most important in addressing trustworthiness. The research team achieved credibility through triangulation and member checks (Shenton, 2004).

Triangulation incorporates the use of multiple independent measurements to reduce bias (Heaton, 2004). Triangulation can exist through methodological triangulation, investigator triangulation, data triangulation, and theoretical triangulation. The research team achieved triangulation through methodological and investigator triangulation. Methodological triangulation was obtained by gaining perspectives from a variety of sources, that is, parents, adolescents and counselors. I achieved investigator triangulation by involving a diverse group of researchers on the research team throughout the research process.

Member checking is a way of validating qualitative research findings and ensuring that the researcher's analysis and interpretation correspond with participants' understanding an intended message (Heaton, 2004). Members of the PHRU study staff conducted member checks by presenting findings and initial interpretations to participants as well as to the adult and adolescent community advisory boards of the PHRU. The PHRU study administrator contacted participants telephonically to arrange a face-to-face group meeting, and liaised with the community liaison officer at the PHRU to attend the adult and adolescent prevention community board meetings. The findings of the FGDs were well received. Parents and members of the adult community advisory boards emphasized the importance of assisting parents and adolescents to communicate effectively about HIV and sexual health.

4.3 Findings of Phase 1a

In this section, the findings of the FGDs are presented.

4.3.1 Response rate.

Members of the PHRU study staff conducted nine FGDs; of the 108 individuals approached, 74% (n = 80) participated in the FDGs. One male only (n = 6) FGD and two female only FGDs (n = 17) were carried out, with 23 parents participating. Two mixed-gender FGDs were carried out, with 22 HIV/HCT counselors (males = 10; females = 12) participating. Two female only (n =15) and two male only (n = 20) FGDs were held with adolescent (n = 35) participants.

4.3.2 Demographics.

Parents were aged 30–66 and all resided in Soweto. Adolescents were aged 16–18 and all

resided in Soweto. Counselors were aged 19–45. All counselors, except one (with a degree in counseling), reported having previously attended a short course in basic HIV counseling at a local NGO. The short course had taken place over a number of weeks and was aimed at basic information and skills provision for those who had no professional qualifications in general counseling and/or HIV counseling. The course covered basic information about HIV/AIDS and incorporated basic counseling techniques. Various such organizations provide HIV lay counseling such as this in Soweto, for example, the Township AIDS Project, also known as TAP, and HIVSA. Thus, the counselors participating in the FDGs had not received identical training, having attended courses offered by different NGOs.

Counselors reported work experience from one to eight years. Counselors were specifically selected to participate in the present study because they carried adolescents in their caseloads. At the time the study was undertaken, there were two adolescent-friendly clinics in Soweto. For confidentiality reasons, specifically to avoid singling out the counselors who participated in the FDGs of the present study, the number of participants working at adolescent only centers cannot be specified.

4.3.3 Summary of themes

Figure 4, following, presents nine key themes related to adolescent sexuality and risks for HIV, as identified from the FDG sessions.

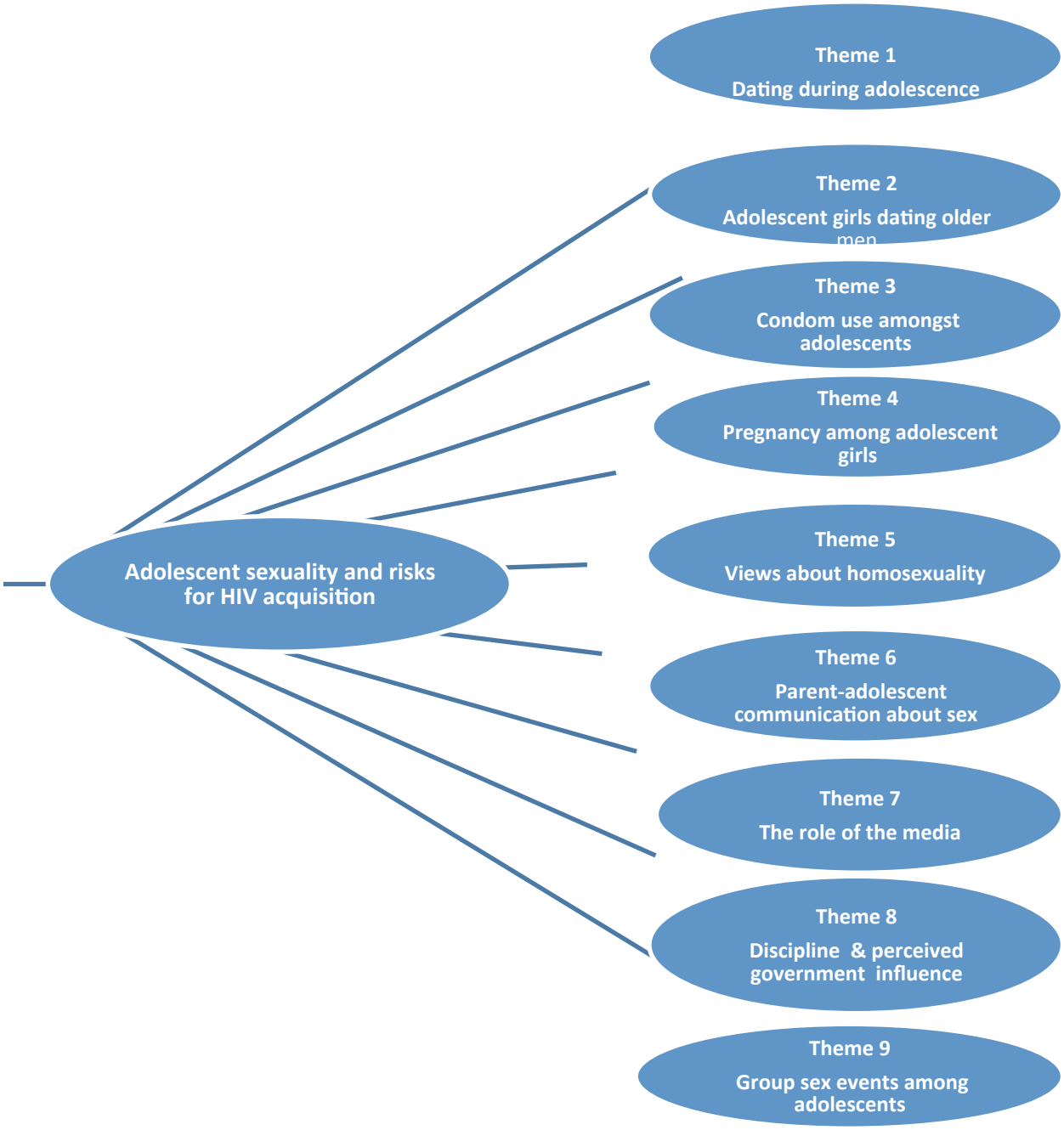


Figure 4. The key themes identified, related to adolescent sexuality and risks for HIV

As displayed in Figure 4, I identified nine key themes related to adolescent sexuality and risks for HIV acquisition: (1) Theme 1: dating during adolescence; (2) Theme 2: adolescent girls dating older men; (3) Theme 3: condom use amongst adolescents; (4) Theme 4: teenage pregnancies; (5) Theme 5: views about homosexuality; (6) Theme 6: parent-adolescent communication about sexual health; (7) Theme 7: the role of the media; (8) Theme 8: discipline and perceived government influence; and (9) Theme 9: group sex events. These are presented in sections 4.3.4 to 4.3.13, following.

4.3.4 Theme 1: Dating during adolescence.

Figure 5, following, presents seven sub-themes identified in relation to Theme 1: dating during adolescence.

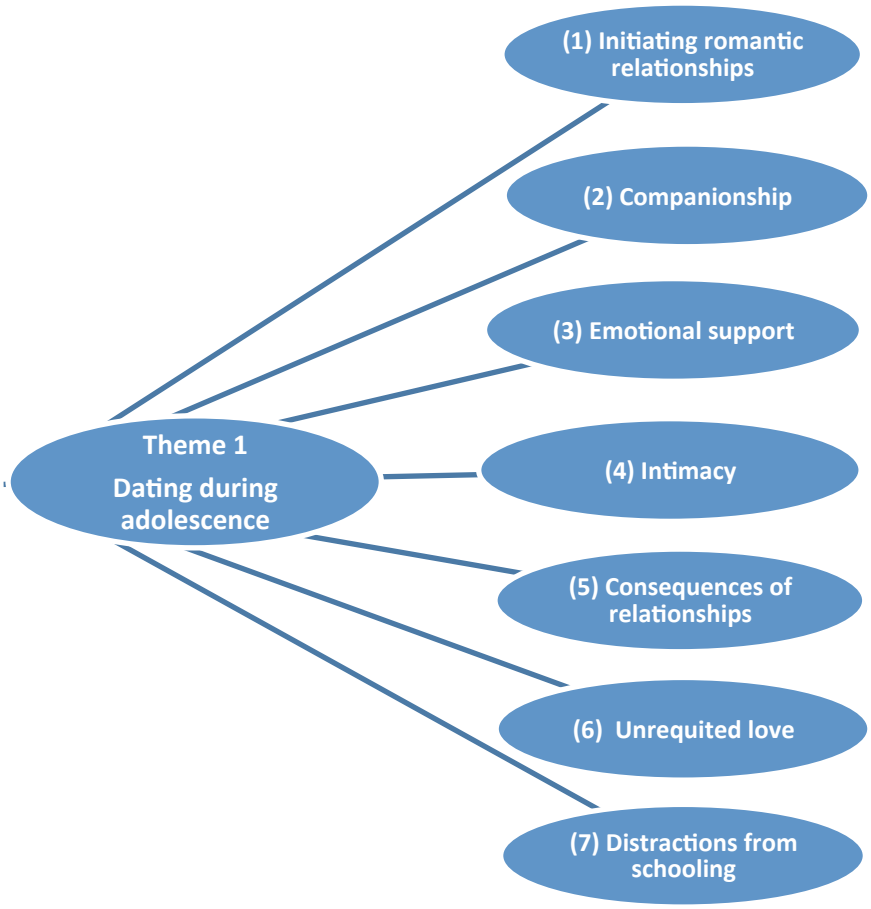


Figure 5. The seven sub-themes related to Theme 1: dating during adolescence

As shown in Figure 5, above, dating during adolescence (Theme 1) was explained in terms of the following seven sub-themes: (1) initiating romantic relationships; (2) companionship; (3) emotional support; (4) intimacy; (5) consequences of relationships; (6) unrequited love; and (7) distractions from schooling. These sub-themes are presented from sections 4.3.4.1 to 4.3.4.4, following.

4.3.4.1 Initiating romantic relationships.

For some male and female adolescent participants, initiating a romantic relationship was considered unplanned, while others reported having planned their relationships. For example, one female adolescent stated: “Having a boyfriend … is something that eventually happens. It’s not planned, you know? But it eventually happens”. This participant explained the unplanned nature of being in a romantic relationship. She did not plan to have a boyfriend but stated that she would have one in the future.

Conversely, a few adolescents stated needing to be prepared for the consequences of relationships. For example, a female adolescent stated: “Personally, I don’t think there is a specific age, but then I think as soon as you feel responsible enough to take all the challenges and risks, then you are ready.” Such adolescent participants recognized that relationships have challenges and risks for which they must take responsibility.

Most adolescent participants spoke about initiating romantic relationships around the age of 16. One female adolescent stated: “When you like 16 … you are getting there. Not necessary old enough, but getting there, to start being involved with someone … not to the extent of being sexual”. In this instance, initiating a romantic relationship was linked with an age of maturity, but not to the initiation of a sexual relationship.

Adolescent females reported awareness of the legal age for sex with others or sexual activity. One female adolescent stated: “According to the law, [sex with someone else] before 16 is statutory rape. When you are 16, you are legal [to engage in sexual activity with someone else]”. At the time of the study, sex with others before the age of 16 was illegal. Female adolescents were aware of the laws concerning sexual activity below the age of 16.

Male and female parents preferred their adolescent children to initiate sexual activity with

a partner at a much later age. One female parent stated: “It is obvious … they start at the age of 16, 17 to have sex … I feel it will be better at least after completing her Matric”. This parent admitted that adolescents initiated sexual activity earlier than parents would like them to. However, she preferred her daughter initiating sexual activity after competing high school.

The conversation below further illustrates female parent’s views on sexual initiation amongst adolescents.

Interviewer: “At what age do you think it is okay for them [adolescent children] to have sex?”

Female parent 1: “At least 19.”

Female parent 2: “Wait, are they matured enough then?”

Female parent 3: “She completes schooling when she is 18.”

Female parent 2: “She doesn’t finish schooling when she is 18. She only complete (sic) her Matric.”

Female parents linked older age with maturity. In particular, parents stated that finishing high school was a milestone connected with maturity.

Male parents spoke also about their adolescent children starting to have romantic relationships. One male parent stated: “It’s not easy for us to know that they are in relationships”. Male parents struggled to come to terms with their adolescent children initiating romantic relationships. Another male parent stated: “It is very difficult to allow a *(sic)* 18-year-old to bring a boyfriend or girlfriend home. No, I don’t operate like that”. This parent would not even allow his daughter to introduce a romantic partner to the family.

Male parents preferred their children to initiate sexual activity even later than the age given by female parents. A male parent stated: “I prefer that if she or he is ready … they should

get married". This male parent connected sexual initiation with marriage. Another male parent stated: "After 21, because at 18, 15, 16 they do not have enough knowledge about life and the difficulties … of life". This parent preferred that sexual initiation occurred at the age of children reaching the age of legal majority, that is, 21.

Another male parent stated: "We are aware of their sexual activities". This male parent recognized that adolescents did not necessarily delay sexual initiation until marriage or the age of 21. He stated:

> When my child turn *(sic)* 16, as a parent, I don't think of her having a relationship just because I haven't witnessed it … I will find that *(sic)* my neighbor's 11-year-old being in a relationship. Then, automatically, it tells me that if this other one does this at this age that means it is possible that my one is also sexually active.

Male parents reported that it was difficult for them to come to terms with their children, particularly their daughters, initiating sexual activity. The parent quoted above had to make the link about sexual initiation in the context of a neighbor's child before reaching that realization with regard to his own child.

This sub-theme showed that adolescents had romantic relationships, whether planned or unplanned, which sometimes led to sexual activity. Adolescents were acutely aware of the legality concerning sexual activity amongst minors, and associated sexual initiation with physical and emotional maturity. At one level, parents were unable to accept that their children were in romantic relationships and, even consequently, sexual relationships. Parents placed great emphasis on their children completing particular milestones, including finishing school, marrying, or reaching the age of majority before initiating sexual activity. Male parents preferred sexual initiation to occur at an even later age compared to female parents.

4.3.4.2 Companionship.

Male and female adolescents stated that dating was a means of having a partner to spend time with, talk to, do homework with, and for sexual activity. For example, a male adolescent stated:

> What we like to do with my friends is that after school we chill … We wait for our girlfriends to come out, go with them to their homes and wait for them to take out their uniform and we go home and also take off our uniform.

Boys spent time together with their peers after school in the form of couples. A female adolescent stated: "If you are sexually active, you can have sex with your partner and you can talk, do homework, and so forth". For this adolescent, having a romantic relationship is linked to sharing many activities. Another female adolescent agreed: "You can share whatever … with the guy". Adolescent females stated that they valued being able to share all aspects of their lives with their partners.

Female adolescents particularly enjoyed talking with their partners. One female adolescent stated: "But the most important part, it's like talk, talk about stuff you don't talk about with your friends". Another female adolescent reported being able to share personal experiences that she was unable to share with her girlfriends or platonic friends and stated: "I just talk to my partner. I trust my partner better than anyone". Female adolescents placed importance on being able to talk with their romantic partners, whom they trusted in this regard more than their friends. Female adolescents spoke about the trust they shared with their partners. One female adolescent stated: "One thing for sure is that whatever you talk about with your boyfriend, it cannot be passed to the other person". In this instance, participants regarded partners as trusted confidants

with whom young girls could share personal information. The following exchange indicated the topics that adolescent couples spoke about:

> Interviewer: "So what kinds of things do you talk to your boyfriend about?"
>
> Female participant: "Personal stuff, problems at home … clothes, your plans for the future."

In particular, female adolescents spoke with partners about personal problems at home, clothes and plans.

This sub-theme indicated that companionship was a major contributing factor to romantic relationships amongst the adolescents. There was a gender distinction in how adolescents understood and experienced the companionship aspects of romantic relationships. For boys, companionship was experienced in terms of their own social peer group context. For girls, companionship was associated with numerous individual benefits.

4.3.4.3 Emotional support.

Female adolescents indicated that they valued the emotional support of relationships. For example, one female adolescent stated: "They [boyfriends] make you feel good about yourself". For this participant, being in a relationship and having a male partner enhanced the self-esteem of young girls. Another female adolescent stated: "And they accept who you are, not who you want to be". This participant valued the unconditional acceptance that boys provided.

Several participants stated that their partners gave them positive attention. One female adolescent stated: "You feel like you love that person and that person makes you feel comfortable. He tells you good things and makes you feel good about yourself". Female adolescents then connected this positive attention with love for their partners. For many female

adolescents, positive attention was not forthcoming from their parents. For example, a female adolescent stated: “He tells you good things and makes you feel good about yourself, which your parents don’t actually do …”. Adolescent girls craved positive attention. If their parents did not provide this attention, they sought it from their partners.

Conversely, a male adolescent who was an only child spoke about the high regard that his parents had for him. He stated: “My parents appreciate having a son … They are proud of me … And that’s the way I want to keep it”. This adolescent talked about the positive regard that he received from his parents. The pride displayed for him by his parents had a positive impact for him in that he wanted his parents to continue being proud of him. This participant stated how positive regard from parents could have positive outcomes for children.

A male parent also stated the importance of positive regard from parents. He stated: “If we give our children love and involve ourselves in their lives … I got all the love I needed”. This parent stated that emotional support is important for adolescents because he himself had received emotional support as an adolescent. He further stated: “A person has stages that one has to go through as a teenager and that’s a very dangerous stage and that’s when you have to make decisions on what do you want in life”. The same parent warned that adolescence was a life stage that could have severe consequences, based on one’s decision-making at the time. Last, he stated: “I am sure if I listened to my granny and my mom I would be an advocate today … I didn’t. I decided to do things in my way, thinking that I am wise”. This parent’s account showed that despite receiving the love and emotional support needed, there was no guarantee that an adolescent would make good life decisions. His understanding of the nature of adolescence implied that one would want to make decisions autonomously, that is, without considering the long-term consequences.

Counselors also spoke about the importance of emotional support. A female counselor stated: "It is important for children to feel needed and valued". She related an example of a mother who provided material but not emotional support to her child. She stated:

> As much as a mother was able to give the girl [her daughter] everything that she wanted … She needed a home where if she had troubles, she can go to her mom and talk about it. It's important to make time for your kids as a mother.

This counselor echoed the sentiments expressed by female adolescents about the importance of receiving emotional support from parents. Another counselor stated: "Even if you say girls are older, there is a whole lot of psychosocial issues such as self-esteem". This statement highlighted the importance of addressing self-esteem with adolescent girls, regardless of their age. The same counselor gave an example of how self-esteem could affect an adolescent client. She stated:

> Self-esteem also does a lot when it comes to HIV issues … 'Right now I need to be loved; I need to be cared for.' This guy makes me feel good, you know? When he goes to parties, he invites me. Even if we have sex at the back of a toilet, but he gives me attention.

Positive attention is important for adolescent girls who will seek this attention from boys, regardless of the consequences.

This sub-theme indicated the gendered aspect of receiving emotional support and addressing self-esteem with adolescent girls. Adolescent girls placed importance on emotional support, including positive personal attention and acceptance. They stated that these aspects were often missing in their relationships with their parents, with male partners thus being important in providing this support.

4.3.4.4 Intimacy.

Adolescent participants reported sexual intimacy as an act that had personal meaning for some adolescents, while others spoke about sex in the context of recreation. Some female adolescents indicated that sexual intimacy had a profound personal meaning for them. For example, a female adolescent stated: "The little innocent you becomes a woman …". For this participant, sexual intimacy represented a transition to adulthood. Another female adolescent stated: "And you experience things when you take your relationship to the next level and have sexual intercourse or when you kiss". Female adolescents associated a romantic relationship with physical intimacy, where a girl progressed from kissing to further sexual activity.

A female adolescent reported that boys initiated sexual intimacy. She stated: "You can't kiss—like when you kiss your friend—you won't feel anything … so to your boyfriend, he is the type of person who brings up the inner you". Girls specifically differentiated between romantic and platonic feelings; romantic feelings for their partner sparked physical intimacy.

Conversely, many male and female adolescents stated that sex was a pleasurable activity that their peers engaged in. A male adolescent participant stated: "To some, it's a hobby. To some it's just something like when they are stressed … like playing soccer". For this participant, adolescents regarded sexual activity as a recreational activity, such as sport. A female adolescent stated: "The teenagers, when they hear the word sex, they think it's something that they should be doing, just to show each other love". In this context, sex was used a means to show love for a partner. The same participant further stated:

> For some—I don't know if it's a myth or it's true—but some boys turn to say something like: 'When we have sex, we are making our relationship stronger.' Then for other people … when you have sex, you know you are taking your relationship to the next level…

Sex was also a means of strengthening a relationship.

Another female adolescent participant stated: “They need to get the stress out by having sex”. Sexual activity was a means to relieve stress. The same participant further stated: “To some … teenagers it’s something that you really recognize with. When you have sex and then … it means you are this ‘cool girl’ or ‘top dog’. So it’s no longer about love but about just having sex”. In this context, engaging in sexual activity was reported to be a means of gaining a higher status amongst peers.

This sub-theme showed the different meanings of sexual intimacy for adolescents. Adolescents regarded sexual intimacy as a transitioning milestone to adulthood, a form of recreation, a means to strengthen a relationship, to relieve stress and as a way of increasing social status.

4.3.4.5 Consequences of relationships.

Male adolescents spoke about the negative consequences of romantic relationships. Pregnancy and suicide were stated as potential consequences of relationships. A male adolescent stated that his peers pressured him to have romantic relationships. He said: “Another thing that stress me as a teenager is chicks [girls]. At the age of 16, when you start seeing chicks and your friends give pressure …”. This statement highlighted the peer pressure imposed on adolescent boys to initiate romantic relationships. The same participant further stated: “And some [friends] advise you with wrong things. Like at the end, you have a baby at a young age”. This participant acknowledged that friends could provide the wrong advice about initiating romantic relationships with females. He also admitted that submitting to peer pressure could have negative consequences. Another male adolescent reported an alternative perspective. He stated:

> I personally don't think having a baby is a mistake, because I mean having sex, what do you think? In every reaction, there must be a product. It's like, I am having sex now, but you not protecting yourself. What do you expect as a person? Obviously, a baby must come out. I think people are ignorant … They have sex just for enjoyment, but you know they are not being responsible.

For this participant, pregnancy occurred as a result of ignorance related to condom usage, specifically not using condoms. Adolescents enjoyed sexual activity without being responsible and using condoms.

Another male adolescent reported that girls easily committed to relationships, so much so that boys found it difficult to end relationships. He stated: "Dating is usually stressful … They [girls] commit themselves to boys too much". According to this adolescent, dating was stressful for boys because girls placed too much importance on romantic relationships with boys. In addition, he stated: "When the boys put them down, they [the girls] like kill themselves". Adolescent girls threatened to commit suicide when boys ended relationships with them.

This sub-theme indicated that adolescent boys initiated relationships at an early age because of peer pressure and poor advice from their peers, often with negative consequences for the girls, such as pregnancy and suicidal thoughts. Further, adolescent male participants stated that adolescent girls placed too much value on romantic relationships, which resulted in the girls not coping if boys ended relationships with them.

4.3.4.6 Unrequited love.

Adolescents emphasized the difference between "being in love" and "real love". A

female adolescent spoke about the confusion related to the word "love". She stated: "I don't believe that we all know what the word 'love' is … and we might see things differently. I may tell you what love is from my perspective … We all have our own different … perspectives". For this participant, love and the experience of love was based on subjective perceptions.

A female counselor agreed with this view, stating: "They [girls] fall in love with the partner, but the partner is not in love with them". Adolescent girls were particularly vulnerable because they placed too much emphasis on love, a feeling which boys did not reciprocate. The same counselor further stated: "You see, but then because there must be that exchange … of sex you know—in return for something … that's their perception of how things would go in a relationship". This counselor highlighted the difference between "love" and "lust". This sub-theme indicated gender differences in how adolescent girls perceived romantic relationships compared to adolescent boys, and that the experience of love was subjective.

4.3.4.7 Distractions from schooling.

Parent participants were aware that their children were involved in relationships. However, they expressed the wish for their children to complete their schooling before entering romantic and sexual relationships. One female parent stated: "It will be better at least after completing her Matric [Grade 12]; then she can [have a boyfriend]". Mothers wanted their children to pass Matric before entering relationships. Another female parent stated:

> I wouldn't say to a Standard Seven [Grade 9] child she must introduce her boyfriend to me. She must first finish school, but if we can [afford it] she will go to university of course … then she can show us her partner.

This mother wanted her child to fulfil the dreams that she and her husband could not, such as finishing school and possibly going to university before considering romantic relationships.

Another female parent cautioned about young boys in the neighborhood. She stated: “The biggest problem that we have in our area—most of the boys are not attending school, and they have relationships with these kids”. According to this parent, many boys in her area were not in school. In addition, she stated:

> If you have a relationship with a person who is doing nothing, he will want to be with you anytime. He doesn’t care about your school. He will wait for you in the street and say “Today you not going to school, you going with me”.

This parent warned that boys not attending school wanted girls to skip school in order to spend time with them.

In contrast to parent’s perceptions, a female adolescent shared that she would prioritize her boyfriend above her schooling if he made her feel happy. She stated: “It depends on what he does for you. If he makes you feel good about yourself and makes you happy, obviously, you give him the first priority before the actual things, like school. You give him first priority”. She further reported that school was a stressful environment where one’s self-esteem was negatively affected. She stated: “At school, they give you stress. They always put you down, and then you feel like, why give them your first priority? Your boyfriend is like the center of your world”. According to this female adolescent participant, adolescent boys were prioritized because of the stressful environment at school.

This sub-theme reiterated the importance that female adolescents placed on receiving positive attention and emotional support from their parents and schooling environment. Despite

parents' wishes for their children to focus on schooling, some adolescents were unlikely to prioritize schooling unless they felt supported within their school and home environments.

4.3.4.8 Conclusion of theme.

Dating during adolescence, whether unplanned or planned, occurred despite parent' wishes for their children to complete schooling prior to starting romantic and, consequently, sexual relationships. There was also a gendered aspect related to dating, with adolescent girls placing a higher value on companionship, emotional support, and physical intimacy, compared to boys. Participants also recognized the consequences of dating, which were often more negative for female adolescents than for their male partners. Parents wanted to protect their children from negative consequences by enforcing rules, such as not allowing their children to bring partners home. However, these rules were often ineffective, especially if parents did not provide their children, in particular, girls, with emotional support.

4.3.5 Theme 2: Adolescent girls dating older men

Figure 6, following, presents six sub-themes identified in relation Theme 2 on adolescent girls dating older men.

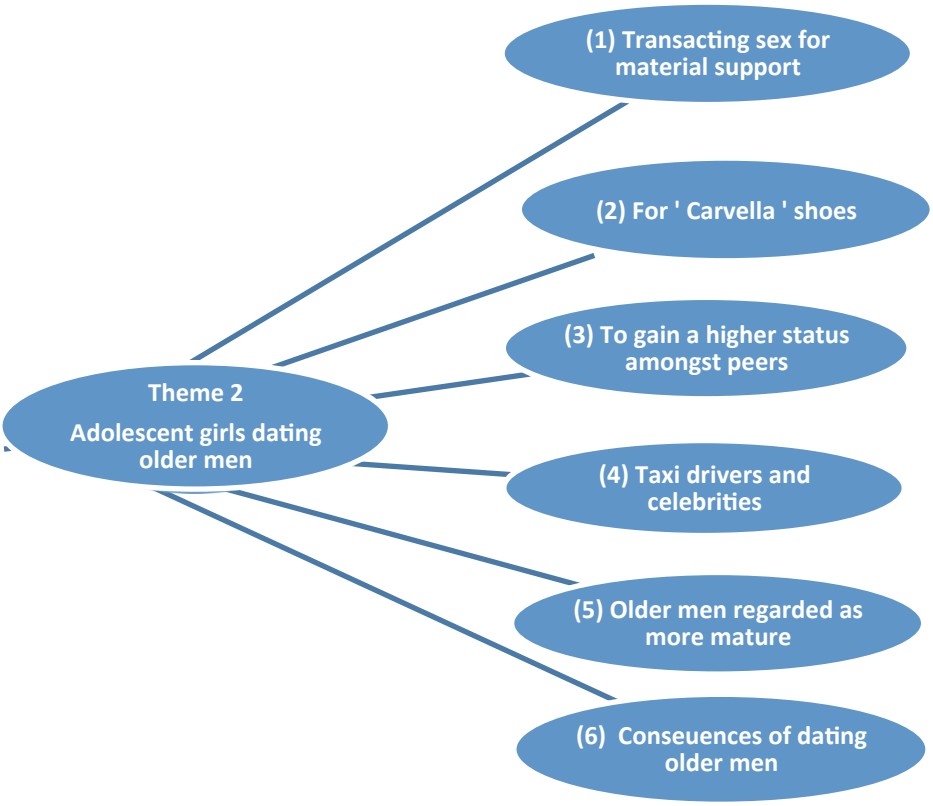


Figure 6. Six sub-themes related to Theme 2: adolescent girls dating older men

Figure 6 displays the six sub-themes that emerged, related to adolescent girls dating older men: (1) transacting sex for material support; (2) for "Carvella" shoes; (3) to gain a higher status amongst peers; (4) taxi drivers and celebrities; (5) older men regarded as being more mature; and (6) consequences of dating older men. These sub-themes are presented in sections 4.3.5.1 to 4.3.5.6, following.

4.3.5.1 Transacting sex for material support.

Parents and counselors stated that poverty was the main reason for transactional sex amongst adolescent girls. One female parent stated: "They know that their parents don't have [money] and they end up getting involved with old men … because they will get things that they want". According to this parent, older men were understood to provide adolescent girls with the necessary material means of support. A male counselor agreed: "They don't want to date someone their own age. They want older boyfriends because they know everything will be covered". For this participant, boys their own age would not be able to provide the material means of support for adolescent girls. In contrast, older men would be able to provide this.

Counselors reported conflicted feelings when working with female adolescents who engaged in transactional sex for food security. One male counselor stated: "It's difficult with adolescents who are involved in transactional sex … They need to support their families. And it makes you think …". It was difficult for counselors to discourage adolescents from engaging in transactional sex because many adolescent girls needed the material support. Counselors stated that the emotional support they (the counselors) could offer adolescent girls did not address the more urgent financial needs the girls experienced. For example, a male counselor stated:

> You cannot offer food or money and she is telling you: 'Even though I want to go to school, I have to sleep with whomever to have that pocket money like every kid at school. Or so that I can buy food'

Adolescent girls from poor families were pressured to have transactional sexual relationships to meet their basic needs. Counselors reported peer pressure as a contributing factor.

Counselors further stated that some parents did not question or want to know how their daughters received their money. For example, one male counselor stated: "When she gets home

on Monday, she brings groceries. They [the parents] get excited without even asking where the money came from. When they are confronted, they say: 'We didn't know'". Some parents, in difficult financial situations, were unable to provide for their families with basic needs, such as food and would not, therefore, confront daughters involved in intergenerational sexual relationships with older men for financial gain.

In other situations, female adolescents hid the truth about their source of money from their parents. A male counselor stated:

> When the girl gives them money for meat and they ask her where the money came from, she will tell them that she asked her friends and they donated because they knew her situation at home. Because they [the family] are starving, there is nothing they [the parents] can do.

Transactional relationships posed difficulties for both children and parents. Some adolescent girls were not truthful with their parents about their sexual relationships in order to help their families. Parents unable to provide their families with basic necessities, such as food, were helpless in addressing the transactional sex relationship because they were receiving much-needed financial assistance. Parents were in a state of cognitive dissonance since they did not want their children to engage in transactional sexual relationships.

This sub-theme showed that many adolescent girls from poor families had urgent financial needs, which could not be addressed through counseling alone. Both counselors and parents reported conflicting feelings when learning about intergenerational and sexual transactional relationships adolescent girls engaged in.

4.3.5.2 For "Carvella" shoes.

Parents and adolescent participants stated that young females wanted to wear expensive clothing and shoes. In particular, they wanted Carvella shoes, a brand of footwear that cost, at the time of writing, approximately ZAR1 000.00 a pair, which many parents could not afford. A female parent stated in this regard: "Our kids like fashion. A person wants Carvella [a shoe brand] but is still at school. She wants to play with a thousand rand on her foot". Many adolescents were influenced by their peers and aspired to conforming to peer norms, particularly those related to clothing and shoes.

A female parent, the guardian of an orphan, related her experience. She stated: "I stay with a(n) orphan, which is my late sister's daughter. She gets the foster care grant. She values her money. She will always tell you about it. She make(s) a list of her things before her money comes". The adolescent in this context received a foster care grant and planned beforehand how she would spend the money she received each month. Further, the parent stated:

> She needs to eat out of this [foster care grant]. Just because a friend have (sic) a *Carvella*. How much is this *Carvella*? A thousand rand? She only gets six fifty a month. How is she going to buy a *Carvella*? I just tell her to buy a shoe that she can afford.

The foster care grant had to cover basic needs, such as food, and not luxury items, like expensive shoes. The adolescent wanted to purchase *Carvella* shoes, a luxury clothing item that cost more than the money she received from her total foster care grant.

A female adolescent agreed that adolescents wanted to wear expensive items like *Carvella* shoes. She said:

> They [adolescent females] really do want *Carvella* [shoes] … the parents can't afford to buy them *Carvella*, but the older man works and because he is getting something in return, he doesn't mind to buy her a thousand rand shoe.

Their parents could not afford to buy such expensive shoes for adolescent girls but older men could.

This sub-theme indicated that material gain, including expensive footwear and clothing items, had high importance for adolescent girls, but that many parents could not afford to purchase such items for them. Older men had the financial means to purchase these items, but expected young females to provide them with sex in return.

4.3.5.3 To gain a higher status amongst peers.

Female adolescents reported that girls increased their status among peers if they were in relationships with older men who could afford material items like cars and "nice" clothes for himself. A female adolescent stated: "When you are in a group of friends and you have an older guy who has money, who drives a car, wears nice clothing, you will always *wanna* be on top".

Female adolescents reported peer pressure to initiate relationships with older men to increase their social status. For example, one female adolescent stated: "You feel that pressure, that she's got something … better than me. So I have to go and get an older man who has money and a lot of cars". Adolescent girls competed for social status by dating older men.

This sub-theme indicated that peer pressure amongst adolescent girls influenced their decision-making process to select older men, the latter who they thought raised their status amongst their peers.

4.3.5.4 Taxi drivers and celebrities.

Counselors, parents, and adolescents reported that adolescent girls had intergenerational sexual relationships with taxi drivers and celebrity soccer players. A female parent stated: "They [adolescents] end up being involved with old men. When we attend school meetings, we are told that our kids are being dropped off in expensive cars. Taxi drivers are bringing lunch for them". Parents would learn about these relationships from their children's teachers at school meetings. A female counselor added:

> It is worse with those that attend school in town. I feel sorry for their parents. They move with all these famous guys, like the soccer players. They eat good (sic) in town. It is even worse with those who use public transport.

Participants indicated that adolescents who attended school outside their residential areas were likely to be amongst those more vulnerable to dating celebrities and soccer players. They received transportation to school and food in return for being in such relationships.

Female adolescents spoke about taxi drivers who often coerced relationships with adolescent girls. A female adolescent said: "If you look at taxi drivers, sometimes they demand that you sleep with the guy … He gives you five rand every day so you think: 'Free rides'". Young girls received free transportation in exchange for sex with taxi drivers. Another female adolescent added: "So protection or no protection … because you benefit something …". According to this participant, sexual activity in relationships with taxi drivers very likely occurred without condoms; however, the adolescent girls valued the benefit of free transportation that came with such a relationship.

This sub-theme indicated taxi drivers and celebrities as groups adolescent girls targeted for transactional relationships. Taxi drivers provided adolescent girls with transport to school in exchange for sex, with the context, thus, often coerced.

4.3.5.5 Older men regarded as being more mature.

Adolescents and counselors reported that girls had relationships with older men because they regarded them as more mature than adolescent boys. One female adolescent stated: "Biologically, the girl is someone that matures very, very fast. They become matured in a way that their hormones, they grow faster". This participant linked the concept of maturity (both physical and psychological) with biological changes during puberty.

Other female adolescents reported, similarly, viewing older men as more mature than boys their age and that adolescent girls matured faster than such boys. For example, a female adolescent stated: "They say girls mature more than boys". Another female adolescent commented: "You want a 21-year-old guy who will level with your maturity stage". For this participant, an older man was at the appropriate level of maturity for adolescent girls.

Counselors also reported that adolescent females matured faster than boys their age, as stated in the following exchange:

Male counselor: "The girls mature quicker than …"

Female counselor: "The guys."

In contrast, however, a male counselor questioned this view: "What about the older people? What are they doing to them [adolescent girls]? 'Cause we [older males] are the ones who makes moves to them before they come to us". According to this participant, older men should be held accountable for seeking out adolescent girls. He further stated: "As parent, or like adults, we

have to guide them. We don't have to judge by saying: '*Hai* [no] …'. They want to be in a relationship with the older people". According to him, parents and older adults should guide rather than judge adolescent girls when they selected older men as partners.

This sub-theme indicated that female adolescents and counselors regarded adolescent girls to be physically and emotionally more mature than the male counterparts of the girls. However, counselors indicated the importance of adult guidance to deter adolescent girls from dating older men, as well as holding older men accountable for selecting female adolescent partners in relationships.

4.3.5.6 Consequences of dating older men.

Participants reported that adolescent girls were vulnerable to HIV, pregnancy, and suicide when dating older men. A male counselor spoke about the difficulty of negotiating condom use in intergenerational transactional sexual relationships. He stated:

> I [older male] am going to take advantage as an old man. She won't challenge me to say 'But we have to use protection [condoms]'. She wants to prove to me that she can do anything to make me happy so that I can give her money or whatever provision that I have to make her happy.

According to this counselor, adolescent girls did not advocate condom use within the context of intergenerational relationships.

A male counselor spoke about unintended pregnancy as a possible outcome of relationships with older men. He stated: "Some of these things cause these kids to be suicidal and falling pregnant by those older boyfriends who are married". In this context, adolescent girls became suicidal because of unintended pregnancy from relationships with older, married men.

The same counselor stated: “After that [after she is pregnant], he doesn’t care and now the problem is she is a teen and she is a mom”. This counselor reported a consequence of relationships with older men was that adolescent girls who became pregnant in such relationships received no support from such older men.

A female counselor stated: “They get involved with old people, like I said. They do whatever they want to do because of money. These kids, they risk with their lives”. According to this participant, adolescent girls took great risks by selecting older partners for financial gain.

This sub-theme showed that adolescent girls in relationships with older men were at greater risk of not using condoms. Participants reported the consequences of not using condoms as including pregnancy and HIV, which resulted in mental health problems for adolescent girls when the older men abandoned them.

4.3.5.7 Conclusion of theme.

Parents and counselors spoke about intergenerational transactional sexual relationships within the context of poverty, in which adolescent girls selected older men to assist with providing basic needs, such as food. However, female adolescents provided alternative reasons. Older men were selected because they were mature, provide adolescent girls with luxury items that their parent could not afford, and provided them with higher social status amongst their peers. It is important to highlight that adolescent girls were reported to be at risk for pregnancy, HIV, and mental health problems, regardless of the reasons participants gave for girls entering into these relationships.

4.3.6 Theme 3: Perceived condom use amongst adolescents.

Figure 7, following, presents five sub-themes identified in relation to perceptions about condom use amongst adolescents (Theme 3).

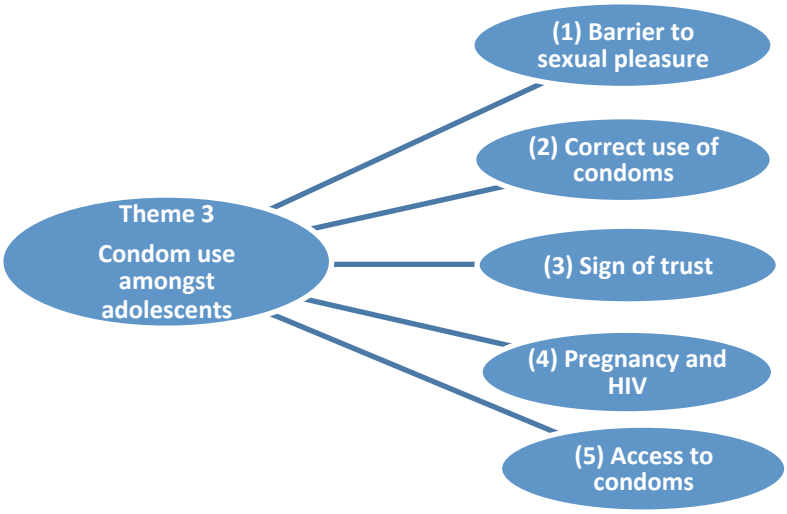


Figure 7. Five sub-themes related to Theme 1: perceptions about condom use amongst adolescents

As shown in Figure 7, Theme 1 on condom use was explained in terms of the following five sub-themes: (1) barrier to sexual pleasure; (2) correct use of condoms; (3) sign of trust; (4) pregnancy and HIV; and (5) access to condoms. These sub-themes are presented in sections 4.6.1 to 4.6.5, following.

4.3.6.1 Barrier to sexual pleasure.

All groups stated that condom use amongst adolescents was infrequent. According to participants, there are various reasons for this. A female adolescent stated: "The boys say it's not enjoyable using condoms. So that's why they don't use condoms". According to this participant, condom use amongst adolescent boys was infrequent because the boys felt there was a reduction in sexual pleasure.

Male and female adolescent participants reported that condoms were "not cool" amongst their peers. A male adolescent stated: "Condoms are not cool. When using condoms you (are) not man enough. They want it flesh to flesh. Condoms, it's like a plastic and a flesh. It doesn't connect". Participants reported a link between masculinity and condom use, with using condoms perceived as decreasing an adolescent's masculinity. Further, a condom was regarded as a physical barrier during sexual intercourse.

Parents also reported that adolescents regard condoms as a barrier during sexual activity. One male parent stated: "They [adolescent children] say 'how can you eat a wrapped sweet?'" A female parent added: "They say they want to prove themselves: 'How can you eat the banana with its peelings?'"

A female adolescent agreed with such metaphoric analogies provided by parents. She stated: "I don't think most teenagers use condoms … you know the boyfriend is *gonna* go: 'Do you think I can eat the sweet with the paper? Why don't you just open the sweet cover?'" The same female adolescent stated: "So, they end up sleeping with boys without condoms". So while adolescent girls attempted to negotiate condom use, adolescent boys pressured them against doing so.

A male adolescent participant agreed with the perceptions held by adolescent boys. He stated: “A girl will want protected sex and a boy will want to fight and say he want it flesh to flesh”. The participants reported adolescent girls as being vulnerable and pressured into engaging in sexual activity without the use of condoms.

This sub-theme indicated the negative perceptions held by adolescent and parent participants about condom use amongst adolescents. In particular, participants reported that adolescent boys refuse to use condoms, citing a negative effect on sexual pleasure as the reason.

4.3.6.2 Correct use of condoms.

Adolescents, parents, and counselors spoke about correct and incorrect use of condoms amongst adolescents. A female adolescent stated that adolescents, specifically boys, did not know how to use condoms correctly, even though they often claimed to know how. She stated, “They don’t really want to learn how to use a condom, but they feel they are man enough to have sex”. Ignorance about correct condom use was linked to masculinity. Sexual initiation for males was viewed as part of the progression to adulthood, but one that did not extend to protected sexual acts.

A female counselor reported that some adolescents while well informed about condoms, were unable to assert themselves to participate in protected sexual intercourse with partners. She stated: “Half of those people who know all the information still don’t know how to act about it. Some still don’t know how to say: ‘No’”. This participant reported that knowledge about condom use was thus insufficient.

Conversely, some parents gave alternate statements. For example, a female parent stated: “These kids are being taught on how to use a condom. These kids, they know”. According to this

parent, adolescents are being taught about condom use. Another female parent stated: “These days children are taught at school … These kids knows (sic) everything”. Many parents placed the responsibility of sexual discussions on the schooling system and therefore assumed their children knew how to use condoms correctly.

This sub-theme indicated that, according to adults, adolescents know how to use condoms correctly. However, according to parents, adolescents may not be equipped to use condoms correctly and advocate using condoms in sexual encounters. This contrasts with an earlier sub-theme in which parents stated not wanting their children to engage in sexual activity.

4.3.6.3 Sign of trust.

All participant groups stated that use of male condoms was influenced by trust within heterosexual relationships. For example, a male counselor stated: “They know each other for three weeks, then they trust each other to do it [sexual intercourse] without a condom”. According to this participant, trust was achieved within a short period. A female parent stated: “90% of teenagers, they don’t use condoms. They say they want to prove themselves …”. Within this context, not using a condom is a way of proving trust for a partner. A male adolescent stated: “He will say: ‘It means you don’t trust me? Why do we have to use the condom? So come on do you think I will give you AIDS’, or ‘okay, you won’t be pregnant’”. Within this context, boys expected girls to prove their trust by agreeing to them not using condoms. The same participant further stated: “He thinks that he is trying to put the relationship to the next level and by doing that you are putting both you guys at the risk of getting an unwanted baby”. This concept of trust placed adolescent girls at risk for unwanted pregnancy and HIV.

This sub-theme showed the perceptions amongst adolescents about trust and condom use. Participants reported that boys influenced the use of condoms by manipulating girls to prove their trust by agreeing to them not using condoms. Lack of condom use led to negative outcomes, such as pregnancy and HIV.

4.3.6.4 Pregnancy and HIV.

Adolescents and counselors indicated the consequences of not using condoms as pregnancy and HIV. For example, a male adolescent stated: "Condoms, it's like a protection from diseases and teenage pregnancy". Condoms could be used to protect against sexually transmitted infections and to avoid pregnancy. Adolescent and counselor participants discussed the consequences of infrequent or no condom use amongst adolescents. For example, a male adolescent stated in the following interview excerpt:

> Interviewer: "And what about girlfriends—do they encourage you to use condoms or they don't encourage you?"
>
> Male adolescent: "They encourage because they don't want to be pregnant or be HIV positive."

Participants spoke about condom use within the context of HIV. A male adolescent stated: "Some girls take a chance because they know that they already have HIV. She thinks: 'Oh what the hell? Let me do it without a condom' and that girl infects the boy with HIV". This participant reported that girls aware of their HIV positive status intentionally decide not to use condoms.

Participants recommended strategies to improve condom use amongst adolescent girls. For example, a female adolescent stated:

> A friend of yours is pregnant, and she will tell you something like: "I slept with this boy and I didn't use a condom". So obviously, you will think that: "I have to use a condom if I sleep with a boy".

Peer pressure could thus be used positively among girls to mitigate the consequences of not using condoms.

Male adolescent and parent participants disagreed about encouraging condom use, but spoke instead about emphasizing the benefits of abstinence. For example, one male parent stated: "Prevention is better than cure … if we can teach our children that it is better to wait". For this parent, adolescents should be encouraged to abstain from sex or to delay sexual debut. Another male parent stated:

> I think it is better to abstain until you get involved in the marital stage. I think that's what our children should be taught. I don't have a problem with condoms, but what I am saying, prevention is better than cure.

This parent also encouraged delay of sexual debut until marriage instead of condom use in pre-marital sex.

In certain instances, the use of condoms had negative connotations. For example, a male adolescent stated: "He will say 'it means you don't trust me … why do we have to use the condom; so come on, do you think I will give you AIDS?'" For this participant, using condoms was reported as a sign that the person initiating condom use is HIV-infected. Another male adolescent stated: "Our peers take us like stupid when you use a condom. 'Why don't you take it flesh to flesh?' And they start swearing you, like calling you names: '*Uyisitabane*' or '*Stuezane*', meaning you are gay". According to this participant, boys were ridiculed for using condoms. In

addition, the use of condoms was associated with being homosexual, with homosexuality considered undesirable.

This sub-theme showed the negative consequences of infrequent condom use. Condom use was linked to being HIV infected and not trusting one's partner. Boys, in particular, were pressured by peers into not using condoms. For girls, peer pressure could be used positively to encourage condom use. Some participants spoke about encouraging abstinence as an alternative to encouraging condom use.

4.3.6.5 Access to condoms.

Adolescents spoke about their perceived and experienced difficulties in accessing free condoms from local public clinics and shops. For example, a female adolescent stated:

> You go to a local clinic and then when you put your hand inside the condom box and then, everyone is now staring at you and you can see them talking about you. That's why most teenagers just go past the condom box, like they weren't even *gonna* go there.

Adolescents feared being judged and stigmatized at local clinics when accessing condoms. Another female adolescent spoke about how adolescents were possibly perceived when purchasing condoms at a store. She stated: "If you are underage—maybe you are 18-years old, you can't actually go to a store and buy condoms without having people react". Adolescents aged younger than 18 years were stigmatized for purchasing condoms at stores.

A female adolescent spoke about her experience of trying to obtain female condoms for a school project at a local clinic. She stated:

> One time I had to do an assignment … and I went to the clinic and I am asking for female condoms and the ladies are like, "No, you not supposed to get it [female condoms]. This is only for women".

Adolescent girls faced discrimination because of their age when trying to access female condoms at local clinics.

Some female adolescents suggested that the female condom be made more accessible and promoted for use amongst adolescent girls. One female adolescent stated:

> I think it would be more appropriate if females were to use female condoms, because I think when you insert it, maybe the boy won't really know the difference between you having a condom in you or not … they will just feel free because they don't have their own condoms.

This adolescent acknowledged the importance of providing girls with female controlled HIV prevention methods. Another female adolescent stated: "I think that more girls will have power if this female condoms are distributed". For this participant, distribution of female condoms could also increase a girl's power to use a female controlled method of HIV prevention.

This sub-theme showed that adolescent girls experienced judgment and discrimination from health care workers when they attempted to access free condoms at local clinics. Female adolescent participants recommended the promotion of the female condom for girls to have a female-controlled method of HIV prevention.

4.3.6.6 Conclusion of theme.

Most participants reported infrequent use of condoms amongst adolescents. In particular, participants pointed to negative perceptions of condom use held by adolescent boys. The use of condoms was also seen to connote different meanings, including distrust and being homosexual. There was disagreement among participants about whether adolescents could use condoms correctly, with parents and counselors agreeing that adolescents could use condoms correctly. Participants reported that adolescent boys manipulated adolescent girls into not using condoms,

which often resulted in pregnancy and HIV for the girls. Girls were regarded as powerless to effectively negotiate condom use, with female adolescents thus suggesting the promotion and distribution of the female condom.

4.3.7 Theme 4: Pregnancy among adolescent girls.

Figure 8, following, presents four sub-themes identified in relation to Theme 4 on pregnancy among adolescent girls.

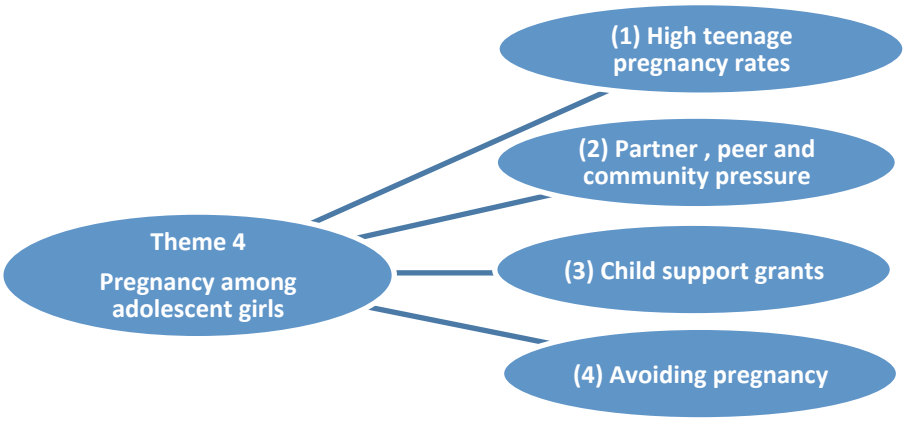


Figure 8. Four sub-themes identified in relation to Theme 4 on pregnancy among adolescent girls

Figure 8, above, shows four sub-themes related to Theme 4 on pregnancy among adolescent girls: (1) high teenage pregnancy rates; (2) partner, peer, and community pressure; (3) child support grants; and (4) avoiding pregnancy. These sub-themes are discussed in sections 4.3.7.1 to 4.3.7.4, following.

4.3.7.1 High teenage pregnancy rates.

All groups stated concern over the perceived high prevalence of teenage pregnancy in communities in Soweto, and gave possible explanations for this. Male and female adolescents reported increased rates of teenage pregnancies at their schools. For example, a female adolescent stated: "My school, they actually call it a maternity ward, because every year, the girls (sic) falling pregnant". According to this participant, adolescent pregnancies occurred at her school annually. A male adolescent stated: "The teenage pregnancy rate is too high; it's very high at our school. We try to give education trying to stop teenage pregnancy but we couldn't". According to this participant, pregnancies occur despite educational efforts at his school. Another male adolescent stated: "In my class, we have, maybe three girls or four that have babies and they are too young because they want to prove a point to their boyfriends". The high pregnancy rate among adolescent girls was associated with girls wanting to please their partners. A male parent stated: "As parents we need to have a way of handling our teenagers". Some parents stated a need for empowerment to address such difficult issues as teenage pregnancy with their children. Although parents felt helpless, a male adolescent stated that parents are responsible for their children's unplanned pregnancies. He stated: "I can say the community is blaming the parents if the girl is pregnant, saying they cannot teach their children rules or … the rights and wrong". This participant blamed parents for not teaching their children morals. Another male adolescent disagreed. He stated: "The parents are not really responsible for their child's life. So they like pointing fingers at the child's parents". According to this participant, parents cannot be blamed for pregnancies amongst adolescent girls.

This sub-theme showed that adolescent pregnancies are perceived to be high despite sex

education provided at schools. Participants associated high pregnancy rates with poor parental responsibility, even though parents conveyed a need for assistance to reduce the risk of their daughters becoming pregnant.

4.3.7.2 Partner, peer, and community pressure.

Adolescents and counselors stated that adolescent girls intentionally became pregnant as a result of pressure from partners and peers, as well as community norms. Adolescents stated that peer pressure influenced intentions regarding pregnancy. For example, a male adolescent stated: "If there was no peer pressure, I am telling you there wouldn't be teenage pregnancy". According to this participant, peer pressure was the main factor associated with adolescent pregnancies. The same participant further stated: "Some of the children at school just do it because they want to prove a point to someone. They feel they are in a stage where they can handle the motherhood". In this context, pregnancy was not unplanned, but rather, intentionally planned.

A male adolescent expressed concern that adolescent girls become pregnant to maintain relationships with their partners. He stated: "Sometimes there is no peer pressure but to prove '*ukuqinisa uthando*' [to make the relationship stronger]. And after that, most of them get babies". This adolescent differentiated between peer and partner pressure, in which girls succumbed to partner pressure to maintain their romantic relationships.

Counselors spoke about pregnancy in the context of access to abortions. A female counselor stated: "Pregnancy is a fashion statement, like, 'even if you get pregnant, you can abort [have an abortion]', just like that". Pregnancy amongst adolescent girls was reported to be thus normalized, with girls having the option of abortion.

A female parent spoke about community influence. She stated: “Once a girl reaches 17 or 18, they start saying she is infertile because she does not have a child”. For this parent, an adolescent girl was considered infertile if she had not reproduced by a certain age. The same parent further stated: “I don’t know what they promote; in that case, they don’t see that they are destroying the nation”. This parent acknowledged that such misconceptions had negative overall consequences for communities.

A male adolescent offered a different perspective. He stated: “Sometimes it’s a mistake to have a baby. It starts with kissing … then it goes to bed and end up having sex. Then what you get next is a baby”. In many instances, adolescent pregnancies resulted from sexual exploration and unplanned sexual activity. Another male adolescent spoke about unprotected sexual acts. He stated: “I think people are ignorant when it comes to [sex].They have sex just for enjoyment, but they are not being responsible”. Thus, unplanned pregnancies occur because of unprotected sexual acts.

This sub-theme indicated the role of peer, partner and community influence on pregnancy intention amongst adolescent girls. However, male adolescents noted the unplanned nature of sexual exploration and its role in facilitating unplanned pregnancies.

4.3.7.3 Child support grants.

Participants stated that adolescent girls planned pregnancies to access the state provided child support grants by the South African government. For example, a female parent stated: “Since there is this grant money, they are competing with pregnancy. So now a 13-year-old child should be pregnant because of this grant money”. Participants reported that girls competed with each other by becoming pregnant in order to access these grants. Another female parent agreed

with this view, stating: “This grant money is not right. You will find that a 21-year-old girl have (sic) three kids”. A girl was perceived as trying to receive more grants by increasing the number of children she had. This particular participant further concluded that the parents of adolescents could not afford to support their children and grandchildren. She stated: “This affects the parents, because the [grant] money is not enough to support these kids ... I would say they should stop this grant thing”. Parents blamed the child support grant adolescent mothers received for their daughter’s intention to become pregnant.

> A female counselor spoke about how adolescent girls spent the grant money. She stated: I don’t have a problem that much about this grant money, because there are people that really need it. But this teenagers between 16 and 18, they make *stokvels* [money saving clubs in townships], drink and buy their clothes with it.

This counselor reported that older adolescent girls spent the grant money negligently, not using it for the intended purpose of caring for their children.

It was interesting to note that male adolescents agreed with parents’ perceptions about the child support grant. A male adolescent said: “The grant money it is a problem that causes a high percentage of pregnancies. They [young girls] say: ‘I need money and the only way is to get pregnant so that I can get grant money’”. This participant affirmed that adolescent girls have babies to access state social welfare grants as a form of income. This sub-theme showed that many participants linked the intention of becoming pregnant with the prospect of accessing the South African state’s child support grant.

4.3.7.4 Avoiding pregnancy.

Adolescents spoke about different ways of avoiding pregnancy. A female adolescent

stated: "Well, most guys tell us: 'You know we *gonna* have sex. When we get to that point where I can feel the sperms (sic) *wanna* come out, I am *gonna* take out my penis'". Boys promoted withdrawal of the penis before ejaculation during sexual intercourse as a contraceptive method. The same female adolescent added: "Because he is not *gonna*, like ejaculate inside me, so I am not *gonna* fall pregnant". A male adolescent also stated: "When I ejaculate, I will just pull out". Participants reported that both adolescent boys and girls perceived withdrawal of the penis at the point of ejaculation during intercourse as a safe means of having sex, that is, to avoid pregnancy.

Another way to avoid pregnancy was by using contraceptives. A female adolescent stated: "I also met [heard of] stupid rumors about contraceptives … they make you wet, they spoil your body, they change your moods, they change your periods". This participant listed many of the perceived side effects of using contraceptives. In addition, she stated: "I mean, as soon as you hear these things, you also start keeping away". Hearing about the perceived side effects of contraceptives deterred young girls from using contraceptives.

A male counselor warned that condoms had to be used too, in addition to contraceptives. He stated:

> If you decide to engage in sex, use protection. Make sure, because she can say she is on contraceptives but that does not prevent HIV but pregnancy. So, you must be wise and use condoms. If it means using double, use double.

The participant highlighted the importance of adolescent males using condoms and the potential misconception that using more than one condom for the same sexual act is protective against HIV and pregnancy.

This sub-theme showed three main means employed by adolescents to avoid pregnancy, including penis withdrawal at the point of ejaculation during intercourse, contraception, and

condoms. Very few adolescents spoke about ways to avoid pregnancy and even fewer about these methods being used consistently, or even at all.

4.3.7.5 Conclusion of theme.

Participants reported high rates of pregnancy amongst adolescent girls despite sex education. Although a few participants spoke about unplanned sexual activity and pregnancy, many spoke about adolescents planning pregnancy intentionally. Pregnancy was perceived to be planned to obtain an income via state child support grants, to please partners, to meet peer group expectations, and as a result of community norms. Adolescents spoke about ways to avoid pregnancy, but very few acknowledged frequent use of condoms and contraceptives.

4.3.8 Theme 5: Views about homosexuality.

Figure 9, below, presents three sub-themes identified in relation to Theme 5: views about adolescent homosexuality.

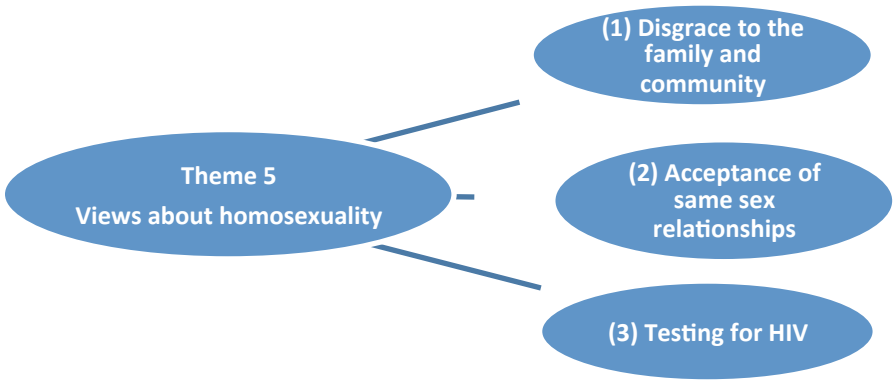


Figure 9. The three sub-themes identified in relation to Theme 5 on views about adolescent homosexuality

As shown in Figure 9, previously, adolescent homosexuality (Theme 5) was explained in terms of the following three sub-themes: (1) homosexuality regarded as a disgrace to the family and community; (2) acceptance of same-sex relationships; and (3) testing for HIV. These sub-themes are discussed in sections 4.3.8.1. to 4.3.8.3, following.

4.3.8.1 Disgrace to the family and community.

All groups reported that their communities stigmatized openly homosexual adolescents or those they suspected of being homosexual. One male adolescent stated: “I mean kissing me and kissing him, it’s like it’s an embarrassment to the community”. Homosexuality was regarded as a disgrace and embarrassment to the community. Another male adolescent agreed: “I think that’s a

disgrace to the family, because it starts with kissing and then what's next? Having sex and then doing all that stuff and it's a disgrace, just a disgrace". Participants regarded displays of affection and sexual relationships by homosexual individuals as degrading to their families. Another male adolescent stated further: "I think it's bad because your family will not like that thing [being homosexual]. People will swear you. They will call you names'. In addition to family disapproval, members of the community ridiculed those openly homosexual. A female adolescent spoke about discrimination and violence directed at homosexual women in her community. She stated: "Two lesbians were killed where I stay, just because they (sic) [were] walking around holding hands". This example illustrates and extreme form of homophobia that take place in the community. Further the example, suggests perpetuation of covert displays of affection and non-disclosure of homosexual orientation.

Some male adolescent participants reported endorsing homosexual relationships but with restrictions. One male adolescent stated: "When you know yourself that, 'I am gay. I am lesbian' you should try to do your thing confidentially. Not in front of people''. According to this participant, homosexual relationships, particularly displays of affection and intimacy, have to be kept private and covert. Another male adolescent stated: "It's [homosexuality] not a problem, unless (sic) it's done privately". All male participants emphasized the importance of keeping homosexual practices discreet.

This sub-theme indicated stigma towards homosexuals as still rife in township communities, including severe forms of homophobia. Even though some participants reported accepting homosexuality, many preferred homosexual individuals to be discreet about their sexual orientation and displays of affection towards partners.

4.3.8.2 Acceptance of same sex relationships.

Some adolescent participants were more considerate and accepting of same sex relationships. A female adolescent stated:

> People should accept other people the way they are. When two people … feel that they love each other and they want to be with each other, you shouldn't stand in their way. If God wants them that way, then who are you to judge them?

For this participant, God was non-judgmental, therefore humans should accept those in same sex relationships in the same way that God does.

A male adolescent stated: "We have to regard their perspective and their own feelings. To that person, it's a very normal thing ... we have to respect them and respect them in whatever they are since they respect us as normal people". For this participant, homosexual relationships had to be accepted in the same way that homosexual individuals respect heterosexual relationships. A female adolescent stated: "With girls, there is a problem … As much as they accept guys being gays, they should do the same with girls". Communities were more accepting of homosexual boys than homosexual girls.

A female adolescent spoke about homosexuality in schools. She stated: "The only time when you will find that they don't judge sexuality a lot is, like an all girls school or an all guys school. You find a lot of it happens there". According to this participant, same sex schools had a higher frequency of same sex relationships and were more accepting of homosexual relationships. Counselors agreed with this report and stated the following:

> Female counselor 1: "Can I tell you the honest truth? It [homosexual orientation] begins at 13."
>
> Female counselor 2: "13, 14, 15".

> Female counselor 1: "From primary school, the place where you really don't think that—that it starts."
>
> Male counselor: "With the teachers".

According to the counselors above, homosexuality was initiated in primary schools with teachers assumed to play a role in facilitating homosexual orientation or identity. A male counselor provided an alternative statement: "I think it is advisable for us as counselor to go to schools to talk about this. Some of them are just experimenting about this homosexual thing. Hence, they don't know really what is going on". According to this counselor, homosexuality amongst adolescents was part of the experimentation during this life stage. Schools were thus ideal venues to speak with adolescents about homosexuality and sexual experimentation.

Parent participants were not accepting of homosexuality. For example, a female parent stated: "I think it is being greedy and not satisfied about who you are, when you are a girl and want to be a boy, you are a boy, you want to be a girl". This mother associated homosexuality among adolescents with being dissatisfied with one's assigned gender. Another female parent related a personal family experience. She said:

> We do have a boy like that in our family. We were so shocked when we heard from people outside … We still haven't accepted him but he tells us that if we don't, it's our problem … It affects you as a parent.

Despite the above family's shock and disapproval, the boy openly disclosed his sexual orientation to the community. The same participant further stated that children learned about homosexuality outside their homes: "It is heart-breaking because you raise a child in the right way and you wonder: 'Where does your child get this thing of being gay and lesbian?' They get all this influence from schools". For this parent, homosexuality was taught at school because

parents raise children the "right way", that is, in terms of a heterosexual orientation. Another female parent stated: "God will never make a mistake of creating you and you change after to be a man … those are the people that need counseling". This parent regarded homosexual orientation as a mistake that could be modified through counseling.

Counselors, in contrast, spoke about the acceptance of homosexual relationships. A female counselor stated: "This thing of gays, it's not a new thing. It has been there from generation to generation". This counselor acknowledged homosexual orientation as having existed across generations. Another male counselor stated:

> They are people too … just because you are lesbian doesn't make you less of a woman. If you are gay, doesn't mean … there is something wrong with you. If you are meant to be like that, we couldn't argue on how others should live their lives. When someone lives a life like that, there is nothing we can do about it.

According to this counselor, homosexual persons should be accepted as having the right to live their lives without their homosexuality being viewed as abnormal.

This sub-theme showed that adolescent and counselor participants were accepting of homosexuality, acknowledging homosexual as individuals no different from heterosexual individuals. Furthermore, homosexual individuals had to be afforded the same rights as heterosexual individuals. However, parents were not accepting of homosexuality and dismissed homosexual orientation as a trait learned in the education system. In addition, teachers were blamed for initiating homosexuality amongst school-going adolescents.

4.3.8.3 Testing for HIV.

Counselors reported that adolescent girls and boys in same sex relationships were starting

to disclose their sexual orientation or identity and beginning to test for HIV. For example, a female counselor stated: "One of the things that's growing at the moment is the gay and lesbianism within the youth. So another focus you might want to go into is looking at not only boy-girl issue, but girl-girl issues". Another female counselor stated: "They [gay couples] come to test". A male counselor stated: "We have gays, we have lesbians. They *wanna* test. But they feel … they are isolated". This counselor alluded to the importance of tailoring HCT for homosexual couples. The same counselor stated:

> If you go there [HCT clinic], then there is a picture with a girl and a boy…. They [homosexual individuals] don't see a man and man or a lady and lady. They won't feel comfortable. They will leave feeling that it's only for normal people.

According to this counselor, homosexual relationships had to be normalized within the health sector, especially at HCT locations. He further stated: "If you can have pictures—maybe two gays, two lesbians you know? That will be nice ... so that we accommodate everyone". HCT for homosexual couples was regarded as inappropriate as it was biased toward heterosexual couples.

This sub-theme showed that even though gay couples were starting to test, HCT is still not tailored to accept them or meet their needs. Additionally, counselor participants did not regard homosexual couples as "normal", even though they recognized the importance of HCT for homosexual couples. Although homosexual couples were starting to test for HIV, testing services as well as counseling and counselors have to be addressed to appropriately meet the needs of this sub-population.

4.3.8.4 Conclusion of theme.

Homosexuality was perceived as highly stigmatized within communities, with female

homosexuals being at the highest risk for violence directed at them. In particular, parents were less accepting of homosexuality. Adolescents were more accepting of homosexual relationships, providing these relationships occurred discreetly. For counselors, homosexual orientation or identity was not perceived as normal, even though counselors showed awareness of the counseling needs of this sub-population. Last, it was regarded as important to tailor health facilitates and counseling for homosexual individuals.

4.3.9 Theme 6: Parent-adolescent communication about sexual health.

Figure 10, following, presents seven sub-themes related to parent-adolescent communication about sexual health (Theme 6).

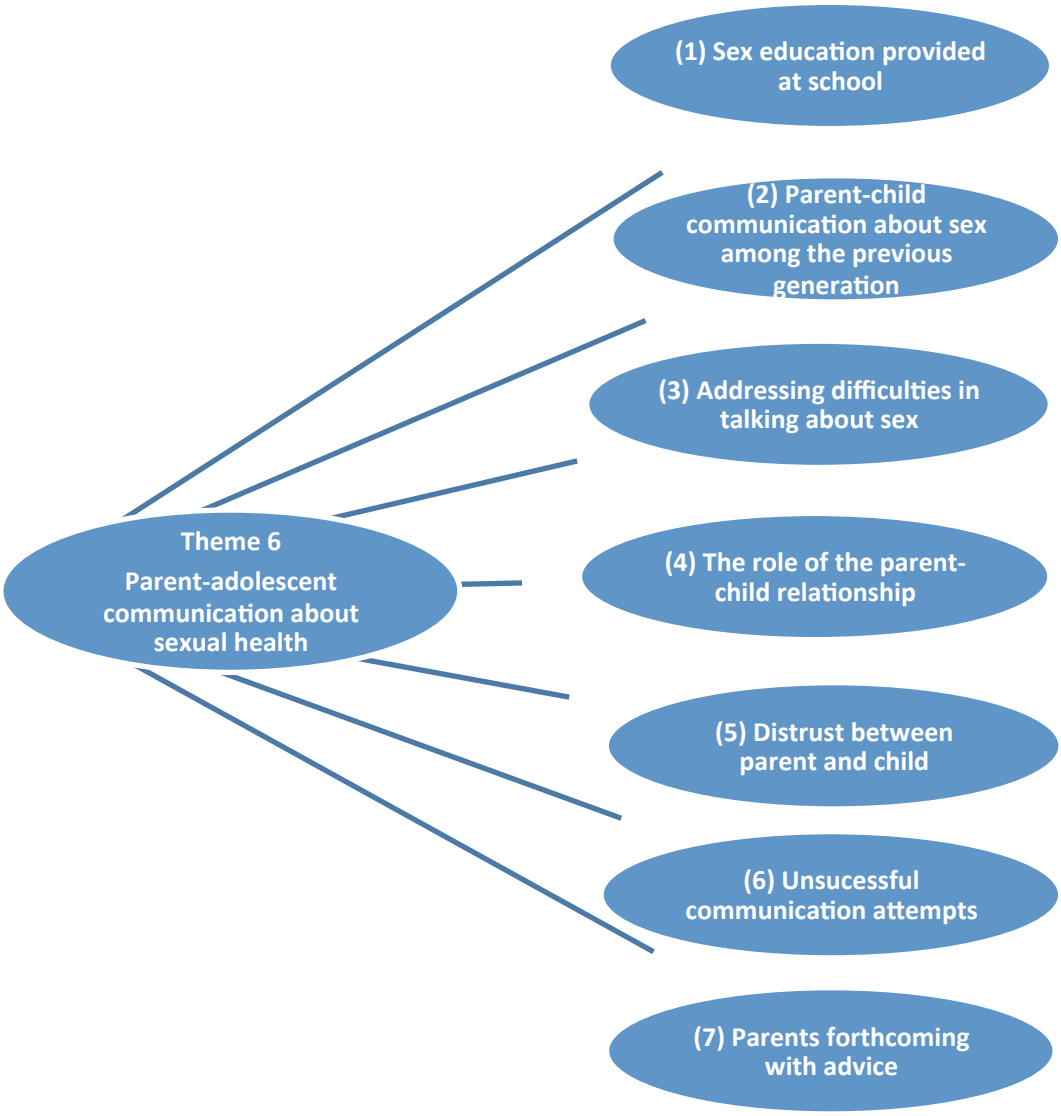


Figure 10. The seven sub-themes identified in relation to Theme 6 on parent-adolescent communication about sexual health

As shown in Figure 10, above, parent-adolescent communication about sexual health (Theme 6) was discussed in terms of the following seven sub-themes: (1) sex education provided at school; (2) parent-child communication about sex among previous generations; (3) addressing

difficulties in talking about sex; (4) the role of the parent-child relationship; (5) distrust between parent and child; (6) unsuccessful communication attempts; and (7) parents forthcoming with advice. These sub-themes are discussed in sections 4.3.9.1 to 4.3.9.7, following.

4.3.9.1 Sex education provided at school.

Both male and female parents reported that adolescents received information about sexual health at school. For example, a male parent stated: "Our kids are being taught at school about such things and when you ask them what they did at school, she will say: 'We were doing health talk'". Most parents stated that their children received sexual health education at school. Another male parent stated: "When a person tells you that she is menstruating and you tell her about pads, she will tell you: 'No, they already taught us at school'". This male parent had attempted to speak with his daughter about menstruation. However, the daughter had stopped the conversation by stating that she had received the information at school. A female parent agreed, stating that: "They just say, 'You see all the things that you hide from us, they tell us at school'". Parents were perceived to hide sexual health information and reported their children informed them that they obtained such information from school.

Another female parent stated that children learnt about sexual health even though the information was not forthcoming from parents. She stated: "These days children are taught at school. These kids knows (sic) everything. Even if you don't put your story on the table, but they know". This parent emphasized the role played by schools in teaching children about sexual health, especially if parents were not forthcoming in discussions with them about sexual health. In addition, this comment reiterated the perception many parents held about their children already being knowledgeable about sex and sexual health. Some parents gave alternative

statements. A female parent stated:

> The responsibility that they play at school, I think you, as a parent, needs to do the same. You have to sit down with your child and talk to her. The teacher also have her own kids that are waiting for her at home.

For this parent, although sexual health education occurred at school, it also had to extend into the home environment. Unlike the parents quoted before, this parent did not stop conversations about sex from occurring at home because her child received such information at school.

Some parents voiced disapproval about the content of sexual and reproductive health education taught at school. For example, one female parent stated: “They have teachers outside that teaches them all the bad things, but you as a parent they don’t take your advice”. Teachers were blamed for teaching adolescents undesirable behaviors, behaviors they regarded as contradictory to what parents wanted to teach their children. Another parent agreed, stating: “They [adolescent children] already know about giving birth. They [teachers] start with [teaching children] going to the bed [sex education] instead of teaching them about life. We have to start about life”. For this parent, sexual health education at school seemed to prioritize information about sexual activity and birthing instead of life skills provision. Further, the same parent stated: “Don’t start about bedroom information [sex education]. You are not at school for bedroom issues”. For this parent, children did not attend school to learn about sexual activity. A female counselor contradicted the statements of this parent, stating: “We are trying to have comprehensive programs in schools … where you teach them about the self first”. This counselor talked about sexual education in terms of it being preceded by the teaching of life skills. Further, the counselor stated: “You teach them what is a choice … It’s not good enough to say: ‘Have safe sex’. It’s not good enough to say: ‘Say no’, to say: ‘Don’t have a boyfriend’”.

This counselor's education programs for adolescents addressed the concerns raised by previous parent participants. The counselor's prevention messaging prioritized decision-making for adolescents before moving to safer sex messaging.

This sub-theme showed mixed statements about sexual health content taught at schools. All parents agreed that sexual health education was addressed at schools, with many parents stating that their children had the correct knowledge. In most instances, this education taking place at schools was reported as a barrier to parent-adolescent communication about sexual health, with some parents emphasizing the importance of such conversations needing to take place in the home environment as well.

4.3.9.2 Parent-child communication about sex among previous generations.

Participants reported that parent-adolescent communication about sexuality and sexual health was a cultural taboo, which carried through from one generation to the next. A female parent stated: "She will never come and tell me things like that [topics related to sex] because I don't have time for that. Because my mother was very strict. You wouldn't sit and tell her about sex". This parent did not have conversations with her daughter about sex because her own mother had not had such conversations with her. She further stated: "I had my elder sister. She used to sit down with me and tell me about menstruation and what not to do and what to do". This mother had spoken with her sister and not her mother about sexual health. Her conversations with her sister included discussion about menstruation.

Another female parent reported that she had not spoken with her mother about sexual issues either. She stated:

> I never sat down with my mom and discussed intimate things. We would wait until you have a problem, then you approach her. Like pregnancy, though you won't tell her straight. You will say things that will make her see that, 'Oh, she might be pregnant'. But nowadays, it's tough.

In this context, communication about sexual health is regarded to have been initiated by the child when she had to inform the parent that she was pregnant. Even then, discussion about pregnancy was not held directly.

A male counselor spoke further about communication initiated by parents in previous generations as not being straightforward or direct. He stated:

> Our mothers, when it comes to sex, they will not talk about sex, like today. They used to talk about snakes. When you are a child and they tell you about snakes, that the snake gets inside of you, you will be scared that: "I don't want the snake to get inside of me". So you get scared to have sex.

In previous generations, mothers used metaphoric analogies to scare their children from engaging in sexual activity. These analogies were regarded as effective in delaying sexual initiation.

This sub-theme showed that perceptions about how conversations about sexuality and sexual health occurred in previous generations were a barrier to conversations about sex between parents and their children in the current context.

4.3.9.3 Addressing difficulties in talking about sex.

Parents and adolescents spoke about the difficulties of talking to each other about sex.

Most parents reported not having communicated about sexuality with their adolescent children for various reasons. One female parent spoke about the difficulty of talking with her daughter about romantic relationships. She stated: “It is not easy to talk about boyfriends to your child, whereas you tell her not to have one. It is not easy if you are a mother”. For this parent, any communication about romantic relationships should include telling her daughter not to have a boyfriend. This type of communication, her daughter may not have welcomed if such a conversation between mother and daughter took place.

Female parents suggested that another adult speak to their daughters about sex. A female parent stated that she would be more comfortable speaking with a neighbor’s child rather than her own child about sexual issues. She said: “It is better if I talk to a neighbor’s child, because I won’t be able to face my child after talking all these things to her. She will say: ‘Why is my mom talking such things to me?’” This mother emphasized feeling uncomfortable with initiating discussions about intimacy and sexual health with her daughter. Additionally, she perceived that her daughter might not have welcomed such a discussion with her.

Another female parent agreed that someone other than her speak with her daughter about sexual health. She stated: “It is better that I send someone else to talk to her. It seems as if you are sending your child to go and do it. I still feel it is better if I send someone else”. This mother was particularly concerned that talking about sex to her daughter might convey the impression to her daughter that she was encouraging the girl to engage in sexual activity. A female adolescent agreed with the suggestion of an adult other than a parent speaking to her about topics related to sex, stating: “It’s much easy to talk to somebody’s parents than my own parents”. Both parents and adolescents appeared to favor the idea of discussing sex with another adult.

However, some parents disagreed with having other adults talk to their children about sex. A female parent stated: “I talk to my child. I don’t just talk to other people’s kids”. This mother was comfortable addressing conversations about sex with her own child as well as with others’ children. She also stated: “I tell her to be free … in case of any problem. She will need me”. This mother recognized the importance of facilitating conversations to prevent negative consequences in the future.

A few adolescents stated that communication about sex with parents could be helpful to them. For example, a male adolescent stated: “I think our fathers and our mothers in the community should advise us more about HIV and AIDS and teenage pregnancy and the consequences that you will suffer as a young mother and as a HIV positive person”. This adolescent indicated a need for conversations about sexual health, including possible consequences of sexual activity.

Unlike female parents, male parents indicated a greater willingness to discuss sexual health with their children. One father suggested that external providers, such as schools and the DoH provide their children with sexual health information. He stated:

> We [parents] have a problem talking about such topics [sex] with our kids … If we can have people from Department of Health to do workshops, like going to schools and educate children … As parents we will have to take it from there. That will make things easy for us.

This male parent recognized that conversations about sexuality and sexual health were difficult for parents to have with their children. He suggested that workshops initiating discussion on sex-related issues should be made accessible to adolescents and parents so that parents could more easily continue discussions on the topics at home. Another male parent stated:

> When we have to address such issues [about sex] we just think of how bad it is and don't get the right way of making your child aware of certain dangers that she might engage herself in. We need to get the way of educating them that will not put them in danger.

This father expressed a need to learn how to facilitate effective conversations about sex to protect his child from taking risks that would result in negative consequences for the child.

The greater willingness of male parents to engage their children about sexual health was reiterated by counselors. For example, a male counselor related his experience of working with male parents. He stated:

> I am telling you some of the parents, like the fathers, they phone to say: 'When is your next group discussion? I want to be part of it. Can't you make one on Saturday because I am working during the week.

Fathers were reported to show eagerness to attend events to help facilitate conversations about sexual health with their children, with employed male parents making efforts to request such events be held over weekends when they were available to attend.

A female counselor spoke about workshops for parents and their children. She stated: "If I am *gonna* have a workshop for adolescents, I must know that I am *gonna* have one for parents as well so that they are also informed of the same information". Further, the same counselor stated: "We mustn't just assume because they are parents [therefore] they are experienced. They must also have workshops to be made understood of a couple of things". This counselor ensured that she carried over information taught to adolescents to their parents in order to improve carryover to the home environment.

This sub-theme showed a gendered difference amongst parents with regard to initiating conversations about sexual health, with fathers more willing to learn strategies towards this end.

Mothers made mixed statements regarding other adults talking with their children about sexual health.

4.3.9.4 The role of the parent-child relationship.

Many adolescents spoke about parent-adolescent communication about sexuality and sexual health in relation to their overall relationships with their parents. They reported good parent-adolescent communication as dependent on a "good" parent-child relationship. A male adolescent stated: "It depends on your parents and the relationship that you have between you and your parents". For this adolescent, the overall parent-child relationship set the foundation for constructive conversations about sexual health occurring. A female adolescent stated: "I don't really have a good relationship with my parents. The person that I talk to is my friend". This adolescent spoke with her friend about sexual matters in the absence of having a good relationship with her parents.

One male parent related his experience with his daughter who had died of AIDS. He explained that he had been unable to have a general conversation with his late daughter, which had made it difficult to talk with her about HIV and AIDS. He stated: "My daughter died in 2007. She couldn't let me talk to her about simple things, before I could even get to HIV/AIDS". He further stated that his late daughter had dismissed his attempts at helping her with homework, which made it more difficult to establish a good relationship with her. He stated:

> And even when I tried to help her with her schoolwork, she will say: "No dad, my teacher didn't say that". Sometimes they make it difficult for us when we want to help. They make you feel like you are in their face.

This sub-theme showed that both parents and adolescents were ill equipped to initiate constructive conversations about sex and sexual health. Poor parent-adolescent communication about sexuality and sexual health was reported to be related to discomfort felt in speaking about sex as well as to poor parent-child relationships.

4.3.9.5 Distrust between parent and child.

Adolescents and parents reported that communication between them was poor because of mutual distrust. One parent stated that her daughter did not trust her with personal information: "My one [daughter] … she usually says I talk too much and I don't keep a secret. So, she does not trust me with her personal things. I talk anyhow. There is nothing that I hide". This mother admitted talking to her daughter about intimate topics even though her daughter did not trust her. In addition, she stated:

> Even when she started her menstruation, she didn't tell me. I just found pads. So we now know that at the end of the month I need to buy her things [sanitary towels] … On top of that, they are now taught at school on what to do in terms of this situation [menstruation].

This statement conflicts with this mother's earlier comment, in which she stated that she spoke with her daughter about intimate topics. However when her daughter began menstruating, she assumed her daughter had received the relevant information about the issue at school and therefore did not address the matter with her.

Two mothers, respectively, reported having physically inspected their daughters' vaginas to check if their daughters were having sexual intercourse. One of them had found condoms in the home and was unsure if her daughter was using them for sex. However, she concluded that

her daughter was not using the condoms during sexual activity. She reported having approached her daughter to physically check if the latter had sperm in her vagina. She stated:

> I do get condoms in the house, but I don't know whether she uses them or not. I don't think she does, because the day I checked her, I found sperms in her private parts. That means they didn't use condoms.

The other female parent spoke about an instance of having felt distrust towards her daughter regarding the issue of having sex. She stated:

> I then grabbed her and threw her on top of the bed and opened her legs. When I checked her private part to show that she had sex, I then beat her and ask her to tell the truth. She said: "I know you beat me for nothing".

This mother used physical force to obtain the truth about the daughter's sexual activity from her. She stated further:

> I then inserted my finger in her and came back with sperms and I told her I am taking you to the police station where you going to tell the truth. She confessed and said: "Yes mommy. I went with so and so to his place and I slept with him".

The mother had elicited truth about sexual activity from her daughter by threatening her with the law. These two cases show extreme situations of distrust, with mothers distrusting their daughters to the extent of using physical threats and violence to gain knowledge about their respective daughters' sexual activity.

Female adolescents reported that mothers were able to recognize when daughters initiated sexual activity. A female adolescent stated: "When I was growing up, there was a woman that said: 'If you finish having sex, in your family, they could see by the way you walk'". Some adolescent girls reported delaying sexual debut, fearing that others would notice a change in their

behavior. A female adolescent stated: “Also with the culture thing, maybe your mother would take you to a clinic … As soon as you start having sex, you are not the same person”. Here, the adolescent alludes to cultural practices related to virginity testing for girls.

Another female adolescent also spoke about the cultural practice of virginity testing. She stated: “My friend says she is Zulu … there is this culture where they … go … for this virginity testing. If their families were not so strict … they were not *gonna* be virgins”. Young Zulu girls thus delayed sexual debut because sexual activity could be identified via a virginity test. She further stated: “If it was not for this ‘*Umemulo*’ [traditional coming of age event for young girls]… they *wanna* have more money”. Passing a virginity test meant the families of these girls could negotiate for a larger dowry when their marriage proposals took place in the future.

Male parents reported that they liked the practice of virginity testing for girls. For example, one male parent stated: You know, I like that one … that of being checked for virginity”. Another male parent stated: “You can do it [virginity testing] in a civil way. Besides taking her to the one that is done by old women, you can take her for blood tests”. This parent spoke about the possibility of traditional virginity testing as well as medical testing, including blood tests.

This sub-theme showed some of the mutual distrust between parents and adolescents, more especially between mothers and their daughters. In certain instances, this distrust led to extreme situations, with mothers physically inspecting their daughters’ vaginas. Vaginal inspections, though extreme, were linked with virginity testing, with medical virginity testing seen as a possibly useful method to check if sexual debut has occurred in girls.

4.3.9.6 Unsuccessful communication attempts.

Participants reported attempts made by both adolescents and parents to have conversations about sex and sexual health that were often unsuccessful. Adolescents reported that parents dismissed conversations initiated by them to talk with their parents about sex. For example, a female adolescent stated: "It is hard to ask them [parents], because my mother used to tell me that never mind I am still young for those things [discussions about sex]". This adolescent attempted initiating conversations about sex with her parents; however, her mother was dismissive, stopping further discussion on the topic.

Similarly, a number of adolescents mentioned being unable to discuss sexual matters with their parents and other family members. For example, a male adolescent stated: "I don't talk intimate things with my parents … it's like, scary. I wonder what are they going to say? Are they going to judge me? Are they going to say: 'I'm disappointed in you?'" Adolescents feared parents reacting negatively by judging them or showing disappointment in them. Another male adolescent stated that he could speak with his father about topics related to sex. He further stated, however: "My mom is a strict person. I can always talk to my father because he understands the stage that I am in … So I feel safe when I talk *(sic)* intimate things with him". This adolescent was comfortable speaking to his father about sex and sexual health, but not to his mother, because, it would appear, such a conversation was easier to accomplish among males, as his father could identify with him as a male in his adolescent life stage.

Rather than talking to parents and other adult family members, adolescents reported preferring to talk about sex and sexual health to their friends, boyfriends, or younger family members, such as siblings and cousins. For example, a female adolescent stated: "It's much easier to talk to my girlfriend than people at home". Another female adolescent stated:

> It's not easy talking to a family member about this type of thing [sexual issues]. My brother is only two to three weeks here [at a time], so it's easy for me to speak to him, but talking to him about such stuff [sex related discussion], it's like I am disrespectful to him. So, I mostly prefer talking to my friends.

Although, this participant spoke with her brother, these conversations were regarded as showing disrespect towards her brother. The same participant further stated: "When you talk to a parent about such things [sexual issues], it's pointless. They won't tell you something constructive". Conversations with parents were not constructive as parents were possibly not forthcoming with positive information. Another female adolescent stated:

> I prefer to go to my friends and asking (sic) them about advice than talking to my mother. When you want to talk to her about sex and things, like teenagers go through, she thinks that you want to do those things.

Parents assumed adolescents were engaging in sexual activity when they raised questions about sex with their parents.

Parents, on the other hand, reported difficulty in talking to their adolescent children, seeing the latter as less receptive to their attempts to initiate discussions about sexuality. One female parent stated: "Sometimes when you talk to your child, they say we [parents] talk too much … I think it is better for me to keep quiet and look at her". This parent attempted to initiate a discussion with her child, but the conversation was not welcomed. Another female parent stated: "I try to talk to my daughter but I see she is not free". Adolescents were reported as feeling uncomfortable having conversations about sex, even when parents initiated such discussions.

Some parents reported speaking with their children, only for the latter to refuse their advice, preferring instead the advice of others. For example, a female parent stated: “Parents, they do talk; it’s just that our kids don’t want to listen”. This parent placed the blame on the adolescents, whom she perceived as disobedient for not listening to their parents. She further stated: “Even if I try talking to her and telling her about AIDS … she don’t want to listen … and if you talk about punishing her, she tells me of Jabulani police station”. This parent attempted conversations about sex in an authoritarian and punitive context.

A male parent stated: “In most cases, they have a chance to talk to their mothers about such issues [sex], but not us—only boys that will maybe try and talk to us”. This father highlighted the gendered aspect of parent-adolescent communication about sexuality, with adolescents displaying greater willingness to speak to their mothers about such topics, in general, and boys, mainly, approaching their fathers.

Counselors also reported adolescents refusing to talk to their parents. For example, a female counselor stated: “Sometimes when we do start speaking to our children, is it because we don’t speak to them right? Are we already telling them: ‘I know that you are having sex’ when they are not?” This counselor stated the same concerns raised by adolescents about parents assuming their children to be sexually active if the latter enquired about sex. Another female counselor stated: “It’s your mom versus your friend out there, because my mom can say this and that but who is my age?” Adolescents stated they were more likely to be influenced by friends their age than their parents.

This sub-theme showed that parents, adolescents, and counselors reported parent-adolescent communication about sexuality and sexual health to be challenging, with mainly failed communication attempts. Many conversations were unsuccessful due to: judgment shown

by parents towards their children, an authoritarian approach to advise their children, peer influence during adolescence, and respect of adolescents for their elders (including parents and older siblings). However, gender may also have an influence on parent-adolescent communication regarding sexual matters, with adolescents speaking about sexual matters with their same sex parent.

4.3.9.7 Parents forthcoming with advice.

There were positive accounts given of parent-adolescent communication about sexuality and sexual health from both parents and adolescents. One female adolescent stated that she spoke with her mother about her sexual relationships. She stated:

> She will give me advice in things like this. She will tell me that if you are like, sleeping with a guy, you have to protect yourself because there are consequences like HIV. She even advised me to go and get tested for HIV.

This adolescent's mother advised her about using condoms and testing for HIV. A male adolescent spoke about his communication with his mother. He stated: "It's easy for me because I am the person who likes to talk to my mom. I can discuss everything with my mother". This adolescent spoke openly with his mother about sex. He further stated: "I can discuss how to make a baby. My mother will tell me: 'If you have sex, you must use condoms". This adolescent appeared to have a good relationship with his mother and was thus able to discuss topics related to sex and sexual health with her in a non-threatening and constructive manner.

A female parent stated that she spoke with her adolescent daughter about sex and HIV as follows:

> I do talk to my daughter about intimate things like sex. She is now 16 years old. She is a person that is already sexually active so I don't hide anything to her. I talk about AIDS and I tell her that it kills".

This mother was aware that her daughter was sexually active and recognized the importance of conversations with her about sexual health, including the consequences of HIV and AIDS.

Despite these positive examples of open parent-adolescent communication, a counselor reported disapproval over such conversations. She stated: "Today's parents are too open—it's not even funny anymore. They want to be friends with their children and the boundaries are no longer there. I can go to my mom and talk about sex". For this counselor, parents appeared to be too open with their children, resulting in blurred boundaries between parents and adolescents, with the parent being regarded as the adolescent children's friends instead of adults in charge of the relationship. The same counselor further stated: "You have your friends to do that. Your mother is there to guide you. Now parents, I don't know who they are trying to impress. They are too friendly, too open". For this counselor, conversations about sex between parents and their children were inappropriate.

Despite the above counselor's disapproval, the following account revealed the importance and benefits of open conversations occurring between parents and adolescents. A male adolescent admitted being initially afraid of discussing intimate topics with his parents and stated: "I used to be scared of talking intimate things with my parents". His father was a priest, which made it more difficult for him to talk about topics about sex and sexual health. He stated further:

> My father is a priest, like, thinking of me talking to my father [about intimate issues] and I am going to see him Sunday in church talking about the word [the Bible]. I don't have to say anything to him because he wants to talk about church, that's it.

For this male adolescent, it was even more difficult to discuss intimate issues with his father as he struggled to separate his father's parental role from the role his father played within the church. This situation changed when his father surprised him on his seventeenth birthday by presenting him with a box of condoms as a gift. His account follows:

> This year he surprised me, because on my 17th birthday, he said: "Son you're 17-years old". He gave me a box of condoms. I was like: "Oh my God!' What is he thinking? I mean I am not yet ready for sex, but he is giving me condoms". I was so surprised, but I feel free talking intimate things with them, including my mom.

Despite the initial discomfort experienced by this boy, he reported now being freely able to discuss topics about sex and intimacy with both his parents. This was due to his father having successfully made a symbolic and practical gesture to initiate discussions about sexuality and sexual health with him.

Although most parents found it difficult to communicate with their adolescent children about sex and HIV issues, a few others reported being able to discuss such topics with their children. For example, a female parent stated:

> I have a boy—he talks about anything with me. He introduced me to the girl, telling me that it's his girlfriend, that he is going to marry her; and I said to him "Where do you work when you talk of getting married?" He said "No, we are still at school, but when we finish with school we are planning on getting married, but I will first work for you, mommy, then save for *lobola* (traditional dowry)".

This parent's child was comfortable introducing his girlfriend to her, as well as discussing his future marriage plans. The participant further stated:

> I then asked if she is my son's girlfriend and she agreed. I then spoke to them about being faithful to one another because of sicknesses like AIDS and they said they know about it and they also talk about it.

This parent was able to facilitate conversations about sexual health in a non-threatening and constructive manner with both her child and his partner.

For many parents, conversations took the form of directives. For example, a female parent stated: "I talk to them; I don't hide [anything] … but for now, I don't want to hear nothing and I don't know what makes you stand outside late with boys because you said you don't have any relationship". This parent reported having conversations with her daughter even though such communication was authoritarian in nature.

This sub-theme showed that in most instances, a non-threatening and non-judgmental approach by parents was effective in facilitating conversations about sexuality and sexual health. However, many parents still perceived conversations being useful, even if these were directive and authoritarian in nature.

4.3.9.8 Conclusion of theme.

Parent-adolescent communication about sexual health was a complex theme, with all participant groups describing more barriers and negative outcomes than opportunities and positive outcomes. Barriers to conversations included cultural taboos relating to open discussions about sex, discomfort about discussions regarding sex, poor parent-child relationships, and authoritarian parenting styles. There was also a gendered aspect of parent-adolescent

communication, with adolescents more likely to speak with mothers than with fathers. However, fathers expressed they were keen to learn strategies to facilitate effective conversations with their children.

4.3.10 Theme 7: The media as a negative influence.

Figure 11, following, presents two sub-themes identified in relation to Theme 7 on the media as a negative influence.

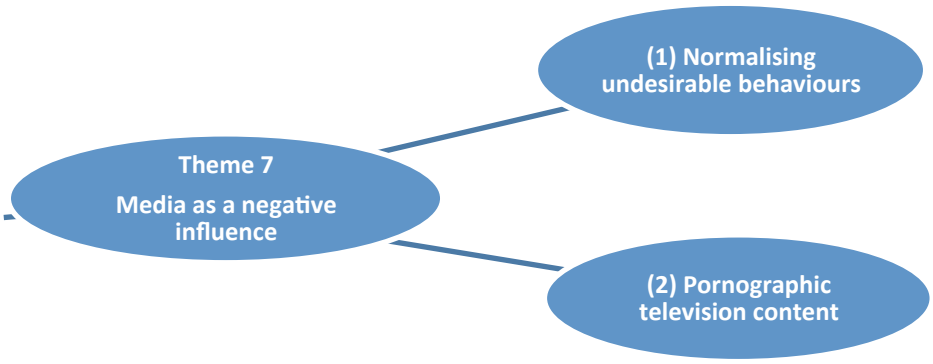


Figure 11: The two sub-themes identified in relation to Theme 7 on the media as a negative influence

As shown in Figure 11, all participant groups spoke about the negative influence of the media on adolescents (Theme 7) in terms of the following two sub-themes: (1) normalizing

undesirable behaviors, and (2) pornographic television content. These sub-themes are discussed below in section 4.3.10.1 and 4.3.10.2, following.

4.3.10.1 Normalizing undesirable behavior.

Parents and counselors discussed the media, including television and music content. A female counselor stated: “I blame the media. Our youth today is like it is because of the media. The media make (sic) vulgar to be fashionable”. This counselor stated that television programs and music content normalized undesirable behaviors among adolescents. Another male counselor stated:

> I think the media plays a very big role ’cause like, children will watch TV today and then tomorrow their parents will tell them something different from what they saw. So what their parents are telling them contradicts with what they saw. So parents must make sure that they state their points and make sense so that the children will not think that what they see on TV is right.

This counselor regarded television content as having the power to influence children, the latter who refused to accept information from their parents if such information contradicted content screened on television.

A male adolescent agreed that the media had a negative influence on young adolescents. He stated: “I think the media, it’s a (sic) element that contributes toward teenagers having drugs and all that. It’s all about alcohol and girls”. This adolescent also blamed the media for encouraging risky behaviors amongst adolescents.

A female counselor expressed concern over the influence of music on adolescents. She stated:

> The … err … music that the boys listen to is about girls this, girls that … And 14-years … boys until 18—the only thing they think of is girls and money. To get girls, you have to have money.

This media context perpetuated the idea that having "girls and money" was important. The same counselor stated: "With girls, it's this things about sexy … they wear sexy clothes". Music marketed the notion of being "sexy" or appealing for girls, especially with regard to choices in attire.

Counselors also spoke, on the other hand, about the positive influence of the media on adolescents. A male counselor stated: "There is a negative and positive media, you know? Where kids can gain from the media …". Another male counselor suggested that music could be used to influence adolescents in a positive manner. He stated:

> We know what youth love, that's what you focus on. I mean get a DJ and again make him a motivational speaker and after that 20 minutes playing music to attract them. The next thing, you start with the education strategy. Because once you formalize it, only three of them will show up.

This counselor emphasized the importance of using music to facilitate talks on sex and sexual health with adolescents. Another male counselor stated:

> The other thing is, there is that music part of it; you get celebrities like Criselda Ananda, people that are not afraid to talk about their HIV status. We have got a lot of people that can motivate the youth to come and listen. We have got youth who are interested in knowing what is really going on.

In addition to the opportunities afforded by music to facilitate education about sex and sexual health among adolescents, celebrities were regarded as useful role models to talk to adolescents about HIV.

This sub-theme showed that most adults (that is, parents and counselors) reported the media as a negative influence on adolescents. However, counselors also recognized the importance of leveraging music and celebrities so that the media could be used as a positive influence among adolescents.

4.3.10.2 Pornographic television content.

Parents accused the American film industry of having a negative influence on adolescents. For instance, a male parent reported a scenario of a male character in an American television program portrayed as having romantic feelings for his mother-in-law. This was condoned in the program. The parent further stated: "*The Bold and the Beautiful* exposes [portrays] that it is okay to be in love with my mother-in-law. Things that we don't know in Africa. But our media today is exposing these things to our kids". *The Bold and the Beautiful* is a popular daytime soap opera, filmed in America and played on weekdays in South Africa. At some point in the long-running series, a romantic relationship was portrayed between a mother-in-law character and her daughter character's spouse. This was perceived as taboo in an African setting. The same male parent suggested the following:

> We should groom them while they are still young. But now what happens with our government if they are going to allow the national TV [stations] to play *The Bold and the Beautiful* … instead of introducing educational programs? What do they [children] benefit?

This parent emphasized the importance of early intervention amongst adolescents and regarded the media as having the potential to facilitate such an intervention in a positive manner by screening programs that are more educational in nature.

Most male parents reported that children accessed pornographic content via the media. One male parent stated: "Even these films that they watch at night—you will find that they [children] switch off the sound and when you come and check, you will see naked people on TV [television]". Pornographic film content was reported to be screened on television late at night when most parents were asleep, with their children muting the sound to conceal what they were watching. Parents also spoke about pornographic content in other media. The following conversation among parents offers one such account:

> Male parent 1: "Let us think of another way that contributes on giving them information about sex?"
>
> Male parent 2: "*Ja [yes],* those are the things like internet and phones. There is such information in those things."

Adolescents were reported as accessing various media platforms to learn about sex, including television, cellular phones, and the internet. This sub-theme revealed that television content filmed in other countries was perceived as foreign, contradicting morals taught in a South African setting. At the time of the study, pornographic content was reported as being accessible on free television stations for children to watch. Finally, parents recognized the influence of other media platforms with regard to pornographic content readily available to adolescents.

4.3.10.3 Conclusion of theme.

Most parents and counselors stated that the media had a negative influence on adolescent

sexual development by encouraging undesirable behaviors. In particular, television content exposed adolescents to pornographic content and situations regarded as immoral or taboo in an African setting.

4.3.11 Theme 8: Discipline and government laws.

Figure 12, below, presents two sub-themes identified in relation to Theme 8 on discipline and perceived government influence in this regard.

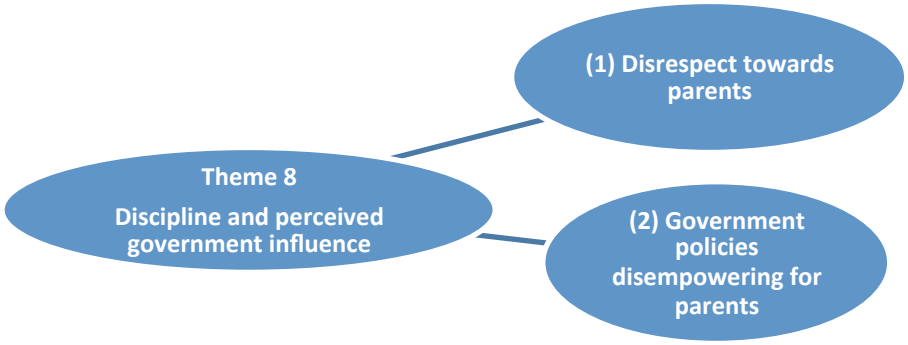


Figure 12. The two sub-themes identified in relation to discipline and perceived government influence (Theme 8)

As shown in Figure 12, above, Theme 8 on discipline and perceived government influence was discussed in terms of (1) disrespect towards parents; and (2) government policies. These sub-themes are discussed in section 4.3.11.1 and 4.3.11.2, following.

4.3.11.1 Disrespect towards parents.

Parents and counselors discussed discipline in the context of respect toward parents. A female parent stated: "They don't respect [parents] and we have no power over them … They have their rights, because we will get arrested. Now as parents, we don't know how to solve this to be able to discipline these kids". Parents associated their ability to discipline their children with the respect shown towards them by their children, as well as with government laws. A male parent stated:

> Fathers have no role to play these days. They are no longer respected in a way that when you start to talk, you get arrested. Whatever you try to do, you get arrested. We are in trouble. Men should just forget; we have nothing to say or do.

Children showed even less respect to fathers, threatening to have the latter arrested by the law if they tried to discipline their children. Another female parent stated: "You will find that when you try talking to her, she will answer you in her own bad way. They don't respect the elders. The thing is, you need to do whatever she wants at her own time". Disrespect was linked to the manner of speech used by children towards their parents as well as children's need for instant gratification. Another male parent stated: "When they see that maybe you respect your parents ... they will call you 'mama's baby'". Adolescents who displayed respect toward their parents were teased by their peers.

A male counselor gave an alternate perspective. He stated: "Parents expect respect from the children, but they don't give respect to the children. As old as I am, I need to respect children, you understand? You must lead by example". According to this counselor, parents had to show respect towards their children to receive respect from them in return.

This sub-theme showed that parents associated their inability to discipline their children with lack of respect shown by their children. In particular, male parents felt more disempowered in disciplining their children.

4.3.11.2 Government policies disempowering for parents.

Parents stated that government policies encouraged risky behaviors among their children and among adolescents in general. For example, a male parent stated: "As parents they are instead stripped of their rights to discipline their children". Parents regarded themselves as being disempowered when it came to disciplining their children. The South African government was blamed for poor discipline amongst adolescents. Another male parent stated: "We can see that these kids are threatening us about (sic) their rights. So they do whatever they like, because they know that you won't do anything. They will report you". Adolescents threatened parents by using their "rights" against parents; thus parents felt disempowered in the process of disciplining their children. A female parent stated: "She doesn't want to listen. They smoke; they do all this bad things and if you talk about punishing her she tells me of Jabulani police station". If parents tried to discipline their children, the adolescents manipulated them, threatening to report their parents to the police.

A female parent linked risk of HIV among adolescents directly to adolescents manipulating parents with the threat of reporting them to the police. She stated:

The fears that we have is this HIV and you will find a person threatening you that she is going to kill herself, so that means we have to keep quiet even if a person is doing a wrong thing.

This parent was unable to discipline her daughter who threatened suicide at the parent's attempt to discipline her. The same parent further stated: "You take her to the police station and they will

talk to her. They are very stubborn and the sad part is that when a person is sick, she becomes your problem". This mother resorted to the police for disciplining her daughter, but this strategy was also unsuccessful.

Male parents blamed mothers for defending their children's undesirable behaviors. One male parent stated:

> Mothers—they are a bad influence to the kids. When I went to report him [the child] and get a protection order from the office, I was told that he is still young. Isn't they are protected by the government? And his mother also protects him. And what happens? This child takes drugs and he drinks Jack Daniels [brand name of alcohol].

This parent blamed government laws and protective mothers for encouraging risky behaviors such as alcohol and drug use among their children.

This sub-theme showed that parents regarded the same policies put in place to protect and serve the welfare of their children to be working against them. They connected children's rights with their sense of self-helplessness as parents in the process of disciplining their children.

4.3.11.3 Conclusion of theme.

This sub-theme showed that many parents felt disempowered and unable to discipline their adolescent children. Children were perceived to be disrespectful, threatened and manipulated parents to avoid being disciplined. Parents described feelings of helplessness in the face of government laws that they regarded as preventing them from disciplining their children.

4.3.12 Theme 9: Group sex events.

Figure 13, following, presents four sub-themes related to Theme 9 on group sex.

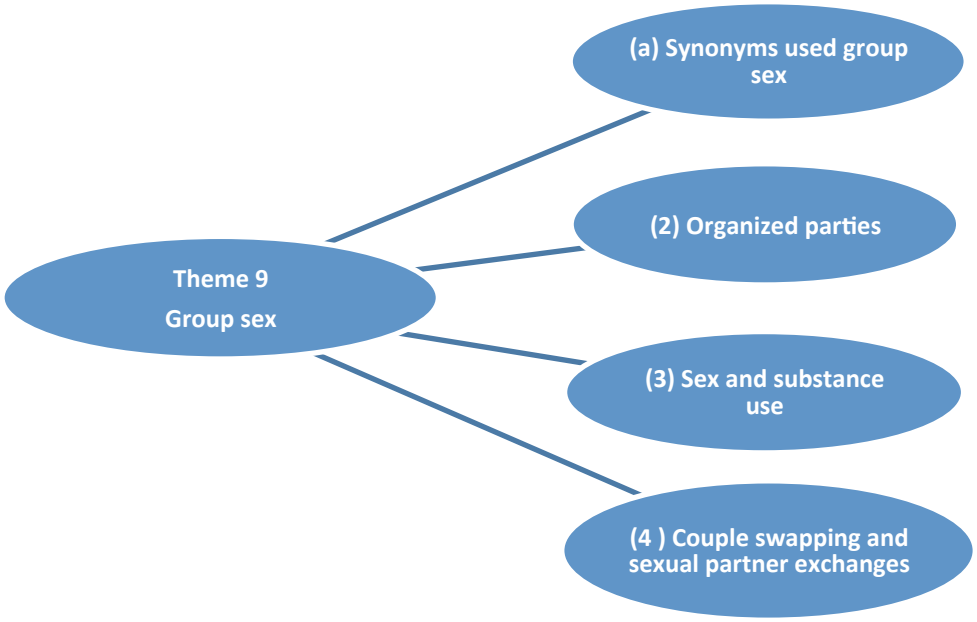


Figure 13. The four sub-themes identified in relation to group sex (Theme 9)

Figure 13, above, illustrates that group sex events (Theme 9) were discussed in terms of the following four sub-themes: (1) synonyms used for group sex events; (2) organized parties; (3) sex and substance use; and (4) couple swapping and sexual exchanges. These sub-themes are discussed in sections 4.3.12.1 to 4.3.12.4, following.

4.3.12.1 Synonyms used for group sex events.

Adolescent participants provided synonyms, coined and used by adolescents, for group

sex events. Synonyms from adolescent males included: “propshaft”, “drinking tea”, and “carpet”. A male adolescent explained the term “carpet” as follows: “They say ‘carpet’. Everybody who gets to the door has to wipe his feet on that carpet”. This term indicates that all boys in a particular group would take a turn to engage in sexual activity with a girl at an event.

Synonyms for group sex events provided by a female adolescent included: “one night stand”, “*ocil*”, and “orgy”. A female adolescent stated: “An orgy is sexual exchange where I am *gonna* go and have sex with your partner and you take mine”. In this context, group sex included partner swapping. Group sex events were usually kept covert, with adolescents using these synonymous words and phrases as a sort of code to prevent others, especially parents, from knowing what they are talking about. A female adolescent stated: “I don’t think teenagers speak about it, you know? I mean they do do it. They do go there”.

This sub-theme emphasized the occurrence of group sex events amongst adolescents. Participants provided specific terms coined and used by adolescents to maintain discretion when discussing group sex events.

4.3.12.2 Organized parties.

Adolescents and counselors reported group sex events commonly organized by adolescents. As mentioned earlier, a female adolescent stated: “I don’t think teenagers speak about it … they do do it”. Adolescents kept group sex events covert. A male counselor spoke about reports heard during counseling sessions with adolescents about adolescent organized parties with the purpose of engaging in group sex activities. He stated: “There are children who engage in group sex … yes, the orgies … they organize themselves …”.

Adolescents spoke about sex for entertainment. A female adolescent stated: “An orgy is

an all-sex party. Basically, you are just there because you get to do it and nothing else. They are basically there for sex". Adolescents seemed to attend these events because sex was a free activity. A male adolescent agreed and said: "Sex in parties is regarded as entertainment". At these parties, sexual activity formed the entertainment for the adolescents attending.

This sub-theme showed that adolescents regarded sex as a form of entertainment at parties. Additionally, adolescents placed emphasis on the occurrence of group sex events. However, adolescents reported that they did not openly talk about group sex events outside their peer group.

4.3.12.3 Sex and substance use.

A male adolescent reported drug and alcohol use as part of the group sex scene at parties. He stated: "If we see a girl that thinks she is beautiful at the party and she is high, I will tell my guys that she is high and we go for her". Girls who used substances at parties were particularly vulnerable with regard to group sex activity. Another male adolescent related his experiences of parties as follows: "These days, how you can define the party? It's no longer like when we all have cold drinks and cakes. These days, you enjoy the chatting, the sex, and the alcohol". Parties in the current era favored sex, drugs and alcohol over talk and refreshments.

One male adolescent admitted that boys used drugs and alcohol at these parties to manipulate girls into risky sexual situations that the girls would otherwise not participate in. He stated:

Well, according to me, it's a place where you do things that you wouldn't do normally. Where they '*ochre*'—I mean drinking and drugs. I mean when you not high you wouldn't

> do sex, you wouldn't go and have sex with that boy, but because you are under the influence of drugs and alcohol, you will definitively have sex.

A male adolescent recognized that substance use, including drugs and alcohol, put girls at high risk to engage in "coerced" sex at parties. He stated:

> So, it's basically taking advantage of her. She is drunk, she hardly remembers anything. So what the hell are you doing? Ethically, I think that's rape, because she is not conscious of what is happening, and you guys are busy exchanging each other with her. So, I think it is taking advantage of a drunken chick [female].

In the context of alcohol use, group sex activities were regarded as coerced. This sub-theme showed gendered difference in the reporting of group sex events at parties. Adolescent males spoke about the consequences of substance abuse among girls, which placed girls at risk of being taken advantage of or coerced into sex by a group of boys.

4.3.12.4 Couple swapping and sexual partner exchanges.

Female adolescents spoke about group sex events for couples, or couple swapping. They used the terms "*ocil*" and "orgy" to describe such group sex events. A female adolescent said: "There is also '*ocil*', that's for couples". She further stated that the couples would arrive at the designated venue in a taxi, which they called a "love boat". She said: "We know when we get to that pool party, we *gonna* start grooving [having sex]. You are with your partner. Come midnight, then you swap partners until you are all tired". Couples intentionally meet at these parties to engage in sexual activity to swap partners for the duration of the party.

Counselors gave an alternative account of the occurrence of group sexual activity. A female counselor stated: "And another thing … err … the guys are not afraid to exchange one

girl within one group". In this context, boys have sexual activity with one girl, but not necessarily within the same time-frame or at the same place. The counselor further stated: "One guy will go and propose … when he gets the girl, there must be a report back to say that how was she, how did she feel, then all of them would want to go feel that girl". Boys reported their sexual conquests to their friends. Based on their reports, their peers also attempted sexual involvement with the same girl, thus leading to the exchange of one girl amongst a group of boys.

In this sub-theme, couple swapping was portrayed as glamorous behavior by female adolescents. Counselors stated how group sexual encounters were often initiated by a peer group of boys who planned sexual activity with the same girl at different times.

4.3.12.5 Conclusion of theme.

Group sex events were intentionally organized by adolescents, which were kept covert. For female adolescents, these events were sensationalized, while male adolescents spoke about them within the context of substance use and coercion of girls. Counselors confirmed having heard of group sex events, highlighting one way in which such sexual activity occurs—boys in a group exchanging the same girl at different times among the group members.

4.4 Summary of Phase 1a findings

The findings presented in section 4.3 earlier showed that risk factors for HIV were influenced at multiple levels. Therefore, the adaptation of the CDC risk reduction counseling intervention will incorporate ecological systems theory to develop a more tailored counseling model for adolescents participating in future biomedical trials. The findings presented in this chapter were

used to inform: the development of the cross-sectional survey in Chapter Five and the adaptation of the CDC risk reduction counseling intervention in Chapter Six of this thesis.

4.5 Discussion of Phase Ia

This section will discuss findings from the qualitative data presented in the previous sections. The findings will be discussed within the key nine themes presented previously: (1) dating during adolescence; (2) adolescent girls dating older men; (3) perceived condom use amongst adolescents; (4) teenage pregnancies; (5) views of homosexuality; (6) parent-adolescent communication about sexual health; (7) the role of the media; (8) discipline and perceived government influence; and (9) group sex events.

4.5 .1 Dating during adolescence.

Few studies in South Africa have focused on the normative aspects of heterosexual romantic and intimate relationships during adolescence (Gevers, Jewkes, Mathews, and Flisher, 2012). Romantic and intimate relationships are a normal part of adolescent development. However, research on these relationships among South African adolescent samples is often investigated in the context of intimate partner violence (Jewkes and Morrel, 2012; Swart, Seedat, Stevens and Ricardo, 2002; Wubs et al., 2009), teenage pregnancies (Jewkes et al., 2001), and risk for HIV (Gevers et al., 2012). The data of the present study showed a gender difference in the reporting about romantic relationships by adolescents. For instance, female adolescents considered romantic relationships to be important for love, support, and companionship. This finding was consistent with that of Gevers et al. (2012), who conducted a similar qualitative study among adolescents in Grades 8 to 11 in high schools in Cape Town, South Africa. Further,

Helms, Sullivan, Corona, and Taylor (2013) conducted a study among 43 adolescents aged 13 to 17 years in the United States to investigate the positive and negative outcomes of risky adolescent dating situations. These authors found that both male and female adolescents reported love and emotional support as benefits of romantic relationships. Bell, Rosenberger, and Ott (2014) found that adolescent boys aged 14 to 16 years in the United States also described the desire for intimacy and trust as important aspects of romantic relationships. The findings by Helms et al. (2013) and Bell et al. (2014) offered a contrast to the present study, as boys in the present study did not indicate a desire for intimacy, love, and trust. Instead, adolescent boys in the present study reported valuing the social aspect of spending time with their girlfriends after school. These differences between the studies referred to and the current study may be due to differences in geographic location, family context, and socio-economic status.

Adolescents and counselors in the present study spoke about the meaning of love and romantic relationships for adolescents. In particular, adolescent girls were perceived to be vulnerable, seen as placing too much emphasis on love and romantic relationships with boys failing to reciprocate their feelings. Girls then found it difficult to cope with the outcome of boys ending relationships with them. These qualitative data are supported by survey data collected in a developed setting. Kindelberger and Tsao (2014) conducted a study among 284 adolescents aged 14 to 19 years in the United States to investigate participants' motivation to establish romantic relationships. Their findings showed that adolescent girls were more motivated than boys to establish romantic relationships (Kindelberger and Tsao, 2014). The findings of the present study and those of Kindelberger and Tsao (2014) provide qualitative and quantitative evidence regarding the gendered dynamic in adolescent girls' motivation to establish romantic relationships.

Adolescent participants in the present study held different interpretations of sexual activity amongst themselves. Some adolescents regarded sexual intimacy as a transitioning milestone to adulthood. Lesch and Kruger (2005) conducted interviews with 25 colored girls aged 14 to 18 years from a low-income rural area in South Africa to explore how these girls experienced and understood sexual behavior. They found that these adolescent girls would engage in sexual activity with a romantic partner if he stated his love for them and not necessarily if she wanted to engage in sexual activity. The dialogue about love was thus related to professing love as a bargaining tool for sexual activity. According to Gevers et al. (2012) adolescents in a study conducted by them reported the progression to sexual activity as dependent on whether a relationship was casual or long-term. In a casual relationship, sexual activity occurred within a shorter time, whereas in a longer-term relationship, sexual activity was delayed in lieu of partners learning more about each other.

Many adolescents in the present study suggested that sexual activity was initiated at 16 years, while some stated sexual activity under the age of 16 years to be illegal. Adolescents thus showed that they were knowledgeable about the laws governing sexual activity among young people. At the time of data collection, sexual activity among adolescents was governed by the Sexual Offences Act (s 15, Criminal Law, Sexual Offences and Related Matters, Amendment Act, No, 32 of 2007) that stated consensual sexual activity below the age of 16 years as indeed illegal. This law has since been amended and aligned with the Children's Act of 2005, so that it is now unconstitutional, but not illegal, for children below 16 years to engage in sexual activity. The recent amendments while allowing younger adolescents to engage in consensual activity without any legal recourse, also allows for exploitative and non-consensual sexual activity among those children younger than 16 years to be reported. According to Strode and Slack

(2013), the alignment of the Sexual Offences Act with the principles from the Children's Act 2005 allows sexually active children below the age of 15 years to access sexual and reproductive health services without fear of having committed a sexual offence.

Adolescents acknowledged that initiation of sexual activity could be planned or unplanned. Similar to findings by Gevers et al. (2012), adolescent girls in the present study reported that boys would initiate the progression from kissing to sexual activity. Gevers et al. (2012) found that boys did not always intend to have sexual activity with their girlfriends but tried to see how far they could progress from non-coital activities such as kissing. Further findings from Gevers et al. (2012) and the present study suggest that adolescent girls placed profound personal meaning on sexual relationships.

Some adolescents showed awareness of the consequences of sexual activity, including emotional experiences. However, sexual relationships could have other negative consequences, such as pregnancy and HIV. Male adolescent participants reported that girls would manipulate boys emotionally when boys wanted to end the relationship by threatening to commit suicide. Parents in the present study emphasized pregnancy and HIV as consequences of sexual activity, but were silent about the emotional aspects, including pleasure, associated with sexual activity.

Lesch and Kruger (2005) found that mothers did not prepare their daughters for the emotions and possible pleasures associated with sexual activity. Instead, conversations about initiating sexual activity were centered on contraception and the dangers of sexual activity such as, rape. In contrast to the findings by Lesch and Kruger (2005), adolescent girls in the present study stated that sexual activity could be used as a form of recreation and pleasure.

Most parents acknowledged that their adolescent children had romantic relationships, but wished that they would finish their schooling before initiating romantic relationships. In

particular, female parents reported concern over their daughters having relationships with boys who loitered in neighboring areas and were not at school. In contrast, adolescent boys reported pressure from peers to initiate relationships with girls, while adolescent girls reported that boyfriends provided them with much-needed emotional support that was often not available to them at school and from their parents at home. In their research, Lesch and Kruger (2005, p. 1080) found that mothers did not always have a close relationship with their daughters, but could provide their daughters a "safe space" to reflect on their romantic relationships and sexual experiences. Lesch and Kruger (2005, p. 1080) recommend that mothers "be helped to reconstruct their daughters' sexuality as valid, valuable and in need of guidance and empowerment". These authors maintain that mothers can develop closer relationships with their daughters by validating their daughters' romantic and sexual experiences. In the era of HIV, parents, in particular mothers, can play a critical role in supporting the sexual and reproductive needs of their children by accepting the normative aspect of romantic and sexual relationships.

Female adolescent participants reported emotion regulation among peers through romantic and sexual relationships. For instance, using sexual activity to cope with stressful situations at school. According to Kinner, Het, and Wolf (2014), the ability to regulate emotions is particularly important before and after stressful events. Many skills such as cognition, information processing, and reasoning skills are established by mid adolescence; however, emotion regulation reaches maturity during early adulthood (Cauffman et al., 2010). Emotion regulation includes automatic and controlled physiological, behavioral or cognitive processes through which individuals modulate both experience and expression of emotions (Ochsner and Gross, 2005). Male adolescents in the present study remained silent about the use of romantic and sexual relationships for emotion regulation. Kong et al. (2014) conducted a study among 299

adult male and female (mean age = 21.55 years) university students in China and found that males had higher emotion regulation processing skills compared with females ($p = 0.004$).

4.5.2 Adolescent girls dating older men.

Intergenerational sexual relationships are of concern to the South African government as well as public health professionals globally because of high HIV prevalence among older men in South Africa. Intergenerational sexual relationships usually co-occur in transactional sexual relationships; they therefore usually occur between young women and wealthier and older men. The literature shows an increase in the reporting of transactional sexual relationships between young women and older women (Kuate-Defo, 2004; Page-Mtongwiza, 2010).

Many participants in the present study reported such relationships in the context of adolescent girls gaining some or other benefit from an intergenerational relationship. These benefits included: gaining a higher status among peers, meeting their basic needs (including food), receiving transport, and acquiring luxury items, such as expensive shoes and clothing. Counselor and parent participants in the present study reported poverty as a strong motivating factor for adolescent girls engaging in intergenerational sexual relationships. Wamoyi, Fenwick, Urassa, Zaba, and Stones (2010b) conducted 17 FGDs and 46 in-depth interviews (IDIs) with young people aged and parents/caregivers in rural Tanzania to explore motivations for and perspectives about transactional sex (Wamoyi et al., 2010b). These authors found that transactional sex was widely accepted by both young people and parents (Wamoyi et al., 2010b), which is in line with reporting on this issue in the present study. Parents accepted their daughters' engagement in transactional sexual activity because their children would otherwise

not have basic needs met. In contrast to findings by Wamoyi et al. (2010b), adolescent girls in the present study hid their intergenerational sexual relationships from their parents.

Participants in the present study also reported intergenerational sexual relationships with older men in order to conform to notions held by peers regarding increase in status from being able to possess luxury items such as expensive branded footwear and clothing items. In many instances, parents were reported as not able to provide such luxury items for their daughters. Hence, adolescent girls' engagement in intergenerational sexual relationships with older men who have the financial means to provide such luxury items in return for sex. Zembe et al., (2013) conducted five FGDs and six interviews among young women, men, and community members in a peri-urban setting in the Western Cape, South Africa to explore the drivers of transactional sex among young women. Their findings are consistent with findings in the present study, in that participants from both studies reported transactional sex as occurring because girls had to meet their basic needs as well as attain luxury items wanted. According to Zembe et al., (2013), transactional sex enables young women from poor families to obtain luxury items in order gain access to peer groups.

4.5.2.1 Peer pressure.

Parent and female adolescent participants in the present study also reported intergenerational sexual relationships between adolescent girls and taxi drivers and celebrities. Specifically, taxi drivers were reported to provide girls with free transport to school in exchange for sex, which was often coerced. Potgieter, Strebel, Shefer, and Wagner (2012) investigated the attitudes of 223 male mini-bus taxi drivers in the Western Cape towards young girls who specifically used mini-bus taxis as their form of public transport. Their findings showed that

more than half (59.6%) the taxi driver participants reported that girls who drove with taxi drivers did so for the gifts they received from them in exchange for sex. Almost half the same participants (48%) reported that girls who had relationships with taxi drivers were admired by their friends. Half the participants disagreed with the statement: “It is not wise for young girls to have relationships with taxi drivers”. The findings of this study showed the perceptions of taxi drivers in the Potgieter et al. (2012) study to be consistent with that of participants of the present study. In both studies, adolescent girls were perceived as exchanging sex with taxi drivers in return for a benefit.

According to counselors in the present study, another reason for adolescent girls engaging in relationships with older men was that they considered them more mature than boys their age. A magazine publication on intergenerational sexual relationships and HIV confirmed that young women showed a preference for dating older men because men their own age were less mature and also more violent (Page-Mtongwiza, 2010).

Participants in the present study reported a number of risks and consequences related to intergenerational sexual relationships. They stated that adolescent girls in relationships with older men were vulnerable to HIV, pregnancy, and suicide. Risk of HIV and pregnancy might be increased because adolescent girls experienced difficulties in negotiating condom use. The findings of the present study are in line with that of another qualitative study conducted among 23 women aged 18–65 in Cape Town, South Africa. Even though these women reported that age-disparate relationships did not result in any adverse consequences, they agreed that older men engaged in risky behaviors, including non-use of condoms and concurrent sexual relationships (Beauclair and Delva, 2013). Another study conducted among 6 177 sexually active

women, aged 15–29, in Uganda, found that high HIV prevalence among young women was partly caused by transmission from older men (Kelly et al., 2003).

4.5.3 Perceived condom use among adolescents.

Most participants spoke about infrequent use of condoms by adolescents. In particular, parents and female adolescents reported negative perceptions of condom use by adolescent boys. Participants in the present study reported that adolescent boys pressured girls to engage in sexual activity without the use of condoms even when the girls insisted on them using them. Mantell et al. (2011) conducted ten FGDs among 74 young men aged 18 to 35 years in an urban setting in South Africa. Their findings showed that even though all the participants reported that condoms could be used to prevent pregnancy and HIV, many still reported inconsistent condom use (Mantell et al., 2011). However, findings by Shisana et al. (2014) showed that young men as well as adolescent boys consistently reported higher rates of condom use at last sex from 2002 to 2012. Several authors point out that male sexual partners control condom use with their female partners (Jewkes, 2009; Pettifor et al., 2004a; Voisin, 2005). Thus, the reporting of condom use by adolescent girls may, in fact, be lower than for their male counterparts.

Participants named several barriers leading to infrequent condom use by adolescents, one being that the use of condoms reduced sexual pleasure for adolescent boys. Another barrier was that condom use decreased an adolescent's perceived masculinity and virility. Selikow et al., (2009) conducted eight FGDs among 13- and 14-year old adolescents in Cape Town, South Africa. They showed similar findings to that in the present study, namely, that "flesh on flesh" sexual intercourse was reported to be pleasurable for the boys. They also found that boys might reject condom use in order that their girlfriends become pregnant to prove their masculinity and virility among their peers. Participants in the present study as well as those in the study by

Selikow et al. (2009, p. 110) reported that using a condom resulted being mocked by their peers for "eating sweets in plastic".

The use of condoms also had different connotations, including distrust. Adolescent girls were expected to prove their trust in their partners by not requiring them to use condoms. This finding is consistent with a study that conducted FGDs among 44 young women and men aged 13 to 25 years in Khutsong (near Johannesburg), South Africa. Participants in Khutsong reported that insisting on condom use with a steady partner showed a lack of respect for and trust in him (MacPhail and Campbell, 2001).

There was disagreement in participant groups about whether adolescents use condoms correctly. Most parents and counselors perceived that adolescents acquired knowledge about how to use condoms correctly from school. However, adolescents themselves reported that their peers did not always know how to use condoms correctly. Eaton et al. (2003) conducted a review of the literature on factors that perpetuate unsafe sexual behavior among young South Africans. This review showed that some adolescents were uncertain about the proper use of condoms, with some also unaware that condoms can prevent pregnancy and STIs. Furthermore, adolescents held misconceptions about the correct use of condoms (Eaton et al., 2003). Selikow et al. (2009) found that adolescents had some knowledge about condoms, but that many relied on information gained from their peers, even though they regarded adults as more trustworthy and accurate sources of information about sex and sexual health. Some adolescents could not obtain information from adults, being reluctant to discuss sexual issues with them (Selikow et al., 2009). The findings of the present study also showed that many parents placed the responsibility of sexual discussions involving adolescents with the schools, assuming thus that their children possessed adequate knowledge about correct use of condoms.

Participants in the present study pointed out the negative consequences of infrequent condom use, namely, HIV infection and pregnancy. They were aware that condom use could protect against STIs and prevent pregnancy. This is in line with findings reported in a study by MacPhail and Campbell (2001), where participants reported that using condoms helped in preventing pregnancy when used with regular partners and in preventing diseases in casual relationships. Peer pressure played a big role for the participants of the present study. Peers of adolescent boys pressurized them not to use condoms. MacPhail and Campbell (2001) found, similarly, that young men were particularly influenced by their peers, who disapproved of using condoms during sexual encounters. In contrast, adolescent girls in the present study stated that peer pressure could be used to encourage condom use. Some parent participants felt that abstinence or delaying sexual debut until marriage could be alternatives to condom use. Harrison, Xaba, and Kunene (2001) conducted peer group discussions among girls aged 14–15 and boys aged 16–19 in South Africa. They found that even though adolescent girls approved of abstinence at their age, stating a preference to delay sex until they were older, all were, in fact, already sexually active (Harrison et al., 2001). Abstinence (or delayed sexual debut) is difficult for adolescents and can be undermined by their strong wish to belong to a peer group, with peers pressuring each other to become sexually active in order to show belonging to the group (Selikow et al., 2009).

Participants in the present study perceived adolescent girls as being powerless in effectively negotiating condom use and in purchasing condoms. They experienced disapproval and discrimination at the local clinics and shops when trying to obtain condoms. This finding is in line with that of Harrison et al., (2001), who concluded that obtaining condoms was difficult for girls. However, in contrast to the experiences of female adolescents in the present study,

some of the girls in the above study had been taught in the clinics about male and female condoms. Because of difficulties obtaining condoms and negotiating their use, female adolescents in the present study suggested the promotion and distribution of the female condom as an alternative, female-controlled method of protection.

4.5.4 Teenage pregnancies.

4.5.4.1 High rates of teenage pregnancies.

All participant groups perceived the rates of pregnancy among adolescent girls in their communities to be high. Neal et al. (2012) estimated that 2.5 million births occurred for girls aged younger than 16 from low-income countries, with 10% of this figure from sub-Saharan Africa. Although adolescent fertility rates in South Africa have declined over the last three decades, the fertility rate of adolescent girls is still high (Moultrie and McGrath, 2007). South Africa has the lowest fertility rate in sub-Saharan Africa. However, the rate of fertility among unmarried South African women is higher than that for women in the rest of Africa. Mccurdy, Schnatz, Weinbaum, and Zhu (2014) analyzed the data of 45 054 adolescent girls from sub-Saharan Africa aged 15 to 19. They found that 6.6% of the female participants were pregnant at the time of the study, with 29.9% of these pregnancies unwanted. Mchunu et al. (2012) collected local data using a population-based, multi-stage, stratified cluster sampling approach among 3 123 participants, aged 18–24. The sample was mainly male (n = 54.6%). The results showed that 19.2% of women reported a pregnancy during adolescence and 5.8% of men reported impregnating a woman during their adolescence. The Stats SA General Household Survey (2012) showed that 4.9% of 13- to 19-year-old adolescent girls were pregnant. The majority of these pregnancies were among adolescent girls between 17 and 19 years of age. The results

showed that 6.8%, 9.9% and 10.2% of the 17-, 18- and 19-year olds were, respectively, pregnant at the time.

Adolescent participants in the present study blamed parents and communities for the high rates of teenage pregnancies, while parent participants reported experiencing a sense of helplessness to protect their daughters from unwanted pregnancies, requesting assistance in this regard. Male adolescents reported that girls became pregnant despite education aimed at pregnancy prevention provided at schools. Richter, Norris, and Ginsburg (2006) argue that there is a silence surrounding teenage pregnancies in South Africa. This silence occurs among pregnant adolescent girls, the fathers of their children, and the parents of such adolescent girls. Further, Richter et al., (2006) reported that parent-adolescent communication was non-existent; thus parents and daughters remained silent about a pregnancy despite visible physical changes observed in the girl's body. The adolescent fathers were reported as too shocked to talk about the pregnancy.

4.5.4.2 Partner, peer, and community pressure.

Parents, counselors, and male adolescents perceived adolescent girls as planning pregnancies as a result of multiple pressures they experienced from partners, peers, and the community. However, male adolescents also reported that sexual activity was often unplanned, with many teenage pregnancies in turn unplanned. Peer pressure becomes prominent during adolescence, the stage in which adolescents seek independence from their parents. According to Madondo (2013), adolescent girls were particularly vulnerable to engaging in sexual activity, fearing stigmatization by peers if they did not. In their qualitative study of adolescents in Cape Town, Gevers et al. (2012) showed that peers were highly influential in the decision-making of

adolescents regarding engaging in romantic and sexual relationships. In another study conducted in Tanzania on 316 adolescents aged between 16 and 19 years, peer pressure was found to be one of the key predictors in adolescents' early sexual debut (Mmbaga, Leonard, and Leyna, 2012). The fourth national household survey in South Africa showed that 5% [3.8, 6.6] of 2 082 young women aged 15 to 24 had experienced sexual intercourse for the first time before the age of 15 years (Shisana et al., 2014). It can thus be concluded that a combination of peer influence and early sexual debut extend adolescent girls' intentions and risk of becoming pregnant.

Participants also reported partner pressure as a reason for teenage pregnancies. For instance, adolescents stated that girls become pregnant with the intention of maintaining relationships with their partners. Cluver, Elkonin, and Young (2013) conducted a qualitative and phenomenological study of four black, school-going, adolescent girls aged between16 and 17 in Grahamstown, South Africa to understand the role of coercion, manipulation, and pressure in their sexual interactions with men. The findings showed that these girls were pressured by partners to engage in sexual activity at a time when they were not ready or unwilling to do so. In the present study, sexual partners were reported using sexual activity as a means of maintaining romantic relationships. In addition, sexual partners were reported to attempt coercing participants, though often unsuccessfully, to engage in unprotected sexual activity.

Participants of the present study remained silent about sexual violence and gender-based violence. Gender power inequalities in South Africa play a major role in the lives of many young women engaging in early and unprotected sexual activity, with the consequence of pregnancy (Panday et al., 2009). According to Panday et al. (2009), relationships are often characterized by sexual and physical violence. Women often stay in these violent relationships to achieve success and self-esteem and to gain material goods (Panday et al., 2009). Findings from the present study

and those from the literature show a combination of pressure from partners to engage in sexual activity and unprotected sexual activity as contributors to teenage pregnancies.

Parents stated that adolescent girls were pressured by community conceptions of virility and fertility. For example, communities considered a young woman infertile if she had not reproduced by a certain age. Such community misconception about infertility may enhance adolescent girls' intentions to become pregnant.

4.5.4.3 The child support grant as an explanation for high rates of teenage pregnancies.

Many participants perceived the provision of the South African child support grant as one reason for the high rates of teenage pregnancies. The South African government introduced the child support grant in 1998. Presently, ZAR310 is provided per child to South African citizens or permanent residents requiring financial assistance to raise a child (South African Government Services, 2014). Biological parents and primary caregivers have to meet specific criteria to be eligible for the child support grant. For instance, in order to be eligible for a grant, a single parent should not earn more than ZAR34 800 per annum and married couples should not earn a combined income in excess of ZAR69 600. In 2013, the South African Social Security Agency (Hall, 2008–2013) reported that 11 341 998 children were receiving child support grants nationally, with 1 581 756 of these received by children in Gauteng Province alone. Given that in 2011, there were 18.5 million children in South Africa below the age of 18 years (Stats SA, 2012), a high proportion of children were thus receiving child support grants.

All participant groups in the present study, with the exception of female adolescents, perceived the child support grant to be a motivating factor increasing fertility intentions among

adolescent girls. Parents reported that adolescent girls planned pregnancies to receive child support grants. Male adolescents and counselors reported that adolescent girls misused the money received in the form of the child support grants. However, contrary to participants' perceptions, there is no evidence indicating that adolescent girls plan pregnancies to receive child support grants (Makiwane, Desmond, Richter, and Udjo, 2006). In 2006, the Human Sciences Research Council (HSRC) compiled a report to investigate if provision of the child support grant is associated with increase in teenage pregnancies in South Africa (Makiwane et al., 2006). The authors used national datasets from South Africa, such as the South African Demographic and Health Surveys and Social Pension Fund Grant System, to ascertain if increase in fertility among adolescent girls could be traced to the time when the child support grants were started in South Africa. Their results showed that teenage fertility peaked in 1996 and has declined, and even plateaued, until 2006. In contrast, the provision of child support grants increased from 1998 to 2005. Although more people were receiving child support grants, this increase was not associated with an increase in teenage fertility. In addition, Budlender and Woolard (2006) showed that recipients of child support grants used the grant money for food, education, and basic goods and services.

4.5.4.4 Avoiding pregnancy.

Adolescent participants acknowledged the existence of methods they could use to avoid pregnancy; however, they remained silent about the use of hormonal contraception by young women. Female adolescents reported the withdrawal method and use of contraception to avoid becoming pregnant. Male adolescents reported condom use as a contraceptive method. Although adolescent participants in the present study reported awareness of contraceptive methods to avoid

pregnancy, the literature shows contraceptive use by adolescent girls to be low. In their data analyses of 45 054 adolescent girls in sub-Saharan Africa, Mccurdy et al. (2014) found that 92.4% of the sample reported not using contraception. However, 73.1% reported they would have difficulty coping with the consequences of becoming pregnant. The findings by Mccurdy et al. (2014) indicate a mismatch between the desire to avoid pregnancy and the use of contraception among adolescent girls in sub-Saharan Africa.

Teenage pregnancies appear to be influenced at three levels of the ecological systems theory. At the macrosystem level, the government is perceived to affect the rates of teenage pregnancies through provision of child support grants. At the exosystem level, community norms about fertility and virility were perceived to increase teenage pregnancies, while at the mesosystem level, peers and partners pressure adolescents and influence their intentions to become pregnant.

4.5.5 Views about homosexuality.

Many participants in the present study framed their perceptions about homosexuals in terms of the latters' public and private behavior. Many participants stated that displays of homosexual affection should take place in private. Such perceptions were inconsistent with the constitution of South Africa, which does not permit discrimination against persons in same sex relationships (Louw, 2005). However, in 37 other African countries, being lesbian, gay, or bisexual (LGB) is illegal and punishable by law (Itaborahy, and Zhu, 2013). At the time of writing, the Ugandan government passed the Anti-Homosexuality Act, 2014, which legalizes life imprisonment as the penalty for same sex behavior in that country. This act prohibited same sex

behavior of Ugandan individuals and extended to individuals and organizations in the country that recognized and promoted same sex orientation and behavior.

Sexual (heterosexual and homosexual) orientation and behavior is a constitutional right in South Africa. However, many LGB individuals in South Africa continue to be stigmatized in their communities (Bhana, 2012; Butler, Alpaslan, Strüumpher, and Astbury, 2003; Lane, Mogale, Struthers, McIntyre, and Kegeles, 2008). There is also a growing body of South African literature concerning HIV prevalence relating to experiences of stigma and homophobia among adult MSM (Lane et al, 2008) and men who identify as gay. However, there is less published literature in existence about adult women who have sex with women, and women who identify as lesbian. There is even less published literature for the LGB adolescent population in South Africa (Miller et al., 2013; Thurston et al., 2014).

Many participants in the current study discussed homophobia in their communities and households. Some reported that adolescent girls who openly identified as lesbian were at risk of physical and sexual violence, and sometimes, even murder. Bhana (2012) also reported murder of lesbians in South Africa. According to Goodenow, Szalacha, Robin, and Westheimer (2008), women who identified as homosexual in southern Africa were indeed more vulnerable to sexual violence as a result of homophobia. ın turn, sexual violence was a risk factor for HIV-acquisition among lesbian and bisexual women in southern Africa. A study conducted among 591 adult women who have sex with women in Botswana, Namibia, South Africa, and Zimbabwe showed that forced sex by both men and women was an independent predictor of self-reported HIV-infection (*OR*: 5.48, CI: 1.70, 17.63) (Goodenow et al., 2008).

There was a silence among participants about violence directed toward young MSM and those who openly identified as homosexual. This silence may be due to the social construction of

masculinity (Lindegger and Quayle, 2009), which privileges heterosexual men in terms of social power. Connel (2008 as cited in Lindegger and Quayle, 2009, p. 42) argues that social constructionism is perpetuated through hegemonic masculinity, wherein scripts of masculinity are deeply embedded through social activity. For instance, compulsory heterosexuality is an example of a hegemonic masculine script (Lindegger and Quayle, 2009). Another such hegemonic script is that men have to show physical and emotional strength (Lindegger and Quayle, 2009). According to the social construction of masculinity, participants in the present study likely remained silent about violence towards MSM because men are assumed to be heterosexual and have to show strength when acts of violence are directed at them.

Homophobia can broadly be defined as the irrational fear, disgust, anxiety, and anger by heterosexual individuals towards homosexual individuals (Butler et al., 2003; Muller, 2013). Experiences of homophobia have been described among adult MSM from Soweto (Lane et al., 2008). The definition of homophobia has been expanded to include internalized stigma, which is the internalization of negative feelings experienced by homosexual individuals (Butler et al., 2003). Participants in the present study were silent about internalized stigma among LGB adolescents, likely the result of many participants believing that homosexual individuals should keep their sexual orientation private.

Parents and counselors in the present study perceived that adolescents learned about homosexuality from teachers at school. However, data obtained by Bhana (2012) and Butler et al. (2003) contradicted this perception. Bhana (2012) conducted focus group interviews with 25 teachers who taught at schools in the KwaZulu-Natal and Gauteng Provinces in South Africa. Bhana (2012) explored teachers' views about gays and lesbians in the school context and found that many teachers were, in fact, homophobic. For instance, some teachers in their study denied

homosexual orientation among learners, while others stated sexual orientation (particularly homosexual orientation) to be inappropriate in the school setting. Learners who were "coming out" had to do so "outside of school" (Bhana, 2012, p. 312). Contrary to participants' perceptions in the present study, teachers in Bhana's study did not teach (or want to teach) learners about homosexuality. However, Bhana (2012) proposes that teachers can still be used to reduce homophobia in schools by providing them with the appropriate support, skills, and knowledge to do so.

Butler et al. (2003) conducted qualitative and semi-structured interviews among 16- to 21-year-old, self-identified gay and lesbian adolescents. These authors found that pupils experienced verbal harassment from teachers in school settings. Many participants in the study by Butler et al. (2003) did not openly disclose their sexual orientation at school, fearing both verbal and physical harassment by peers and teachers. Although a few participants in the current study perceived the school setting as facilitating homosexual orientation, many participants stated that adolescent homosexual individuals keep their romantic and sexual practices private.

Counselors in the present study also suggested that HIV testing be tailored and marketed to meet the needs of the LGB population. Counselors reported that HIV testing services assumed a heterosexual orientation among all individuals accessing such services. For example, images on posters displayed in waiting rooms depicted heterosexual relationships. These data are supported by Neville and Hendrickson (2006) who showed that in New Zealand, the healthcare needs of the LGB population to have been neglected. Neville and Hendriksen (2006) conducted a study among 2 269 males and females in New Zealand who were 16 years and older and who identified as LGB individuals. The majority of the sample (54.5%) was male, with 45% of the overall sample living with a same-sex partner. The researchers found that more women (83.2%)

than men (65.8%) reported that their healthcare provider "always" or "usually" assumed heterosexual orientation (Neville and Hendrickson, 2006, p. 411). According to Neville and Hendricksen (2006), healthcare providers may give inappropriate sexual and reproductive healthcare services if they assume that all users of healthcare services are heterosexual. These authors state that the healthcare system in New Zealand (and by implication in other countries) should provide more sophisticated HIV and STI services tailored to meet the needs of the LGB population.

Lane, et al. (2008) conducted interviews and FGDs among adult MSM in Soweto and Mamelodi in Johannesburg. Their findings were consistent with those of Neville and Hendriksen (2006). Participants in the Lane et al. (2008) study reported being discriminated against by healthcare workers on the basis of their sexual orientation. In the Lane et al (2008) study, previously mentioned, participants self-identifying as gay reported selecting clinics that respected their privacy. Participants self-identifying as heterosexual reported not having to disclose their sexual orientation or sexual behavior to healthcare workers when accessing healthcare services. Discrimination against LGB individuals by HCW's can result in the delay of access to testing services for persons identifying as gay or lesbian. Such delays may result in late initiation of ART and lack of access to PEP and PrEP.

Homosexuality is influenced at all levels of the ecological systems theory. However, accounts by participants in the present study were located in the exosystem. In particular, participants reported on community responses toward adolescents identified as homosexual. Many participants blamed the school setting for facilitating homosexual orientation among school-going adolescents.

4.5.6 Parent-adolescent communication about sexual and reproductive health.

Some parents and adolescents indicated communicating with each other about sexual and reproductive health topics, but that initiation of such dialogues was mutually difficult. Adolescents reported that such conversations were not always meaningful or constructive for them because they tended to consist of warnings by parents against the initiation of sexual activity, especially interaction of girls with boys. Many parents attempted to initiate conversations about sex and condom use, but these were often inconclusive.

Parents and adolescents in the present study acknowledged that open communication about sexuality and sexual health was underpinned by the overall parent-adolescent relationship within which the child was comfortable to discuss general topics with the parent and where the child perceived the parent as supportive. Newman, Harrison, Dashiff, and Davis (2008) conducted a review of the literature from 1996 to 2007 to determine the influence of parenting styles on risky behaviors, including risk of unintended pregnancies and STIs. The researchers found that the quality of the parent-adolescent relationship influenced risky sexual behaviors during adolescence. For instance, research conducted among 253 British mother-adolescent dyads showed that maternal parenting style of care or involvement was associated with delay of sexual debut among adolescents aged 15 to 16 years (Taris and Semin, 1998). Another study conducted in the United States established the role of parental communication and instruction about sexual behavior among 1 083 adolescents aged 13 to 17. Adolescents in this study were less likely to have initiated sexual intercourse if their parents had given them directions, set clear rules, and provided reasons for delaying sexual activity (Aspy et al., 2007).

Many parents in the present study reported using an authoritarian approach when

initiating or engaging in conversations about sex with their adolescent children. Adolescent participants reported frustration when parents were authoritarian and reprimanded them in the course of such conversations. An authoritative rather than an authoritarian parenting style has been shown to be protective against sexual risk behaviors and teenage pregnancies by facilitating greater self-control, resistance to peer influence, and decreased psychological distress (Bhana and Petersen, 2009; Newman et al., 2008). An authoritative parenting style is broadly defined as one in which the parent has high control and high acceptance of the adolescent child (Newman et al., 2008). Authoritarian parenting is one in which the parent displays high control over and low acceptance of the child (Newman et al., 2008)

A few parents reported being openly communicative with their children about sexual health. However, such open communication was often linked with fear-based messaging. In particular, mothers focused on the negative consequences of sexual activity and relationships in their communication with their adolescent daughters. De Hoog, Stroebe, and de Wit (2005) conducted extensive research about fear-based communication in health education. Their findings indicate that the severity of and vulnerability of a portrayed risk could affect an individual's intentions and behaviors to reduce a particular risky behavior. The results in the research by de Hoog et al., (2005) are consistent with that in research conducted by Lesch and Kruger (2005). Lesch and Kruger (2005) explored views of sexuality among 25 colored adolescent girls aged 4–18 in a low-income rural area in the Western Cape. They found that open communication between the participants and their mothers involved the conveying of fear-based messaging about sexual activity and relationships with males. For instance, mothers communicated sexual intercourse as a dangerous activity to their daughters (Lesch and Kruger, 2005). Another qualitative study conducted among 41 adolescents aged 14 to 19 from Soweto in

South Africa showed findings similar to the present study (Soon et al., 2013). Many of the participants reported a desire to communicate with their parents about HIV and sexual health. However, the adolescents reported that these discussions consisted of parents warning them about the dangers of engaging in sexual activity. Thus, many adolescents were too afraid to approach their parents with questions about HIV and sexual health, fearing their parents may possibly even react violently to them if they initiated such discussions.

Parents in the present study were also concerned that open communication about sexual health might give the impression that they were condoning sexual activity among their children. Research exploring if parental discussions about sex encourage sexual activity among adolescents is inconclusive. For example, such research conducted in Malawi and Uganda showed that parent-adolescent communication about sex-related matters was indeed associated with adolescents engaging in sexual activity (Biddlecom, Awusabo-Asare, and Bankole, 2009). Another study conducted among 894 students at two senior secondary schools in Ghana showed that parent-adolescent communication about HIV/AIDS was associated with increased condom use (Adu-Mireku, 2003). These results suggest that parents have thus far been unsuccessful in preventing sexual debut, but have been successful in increasing opportunities for protected sexual acts amongst their adolescent children.

Two of the parent participants in the present study reported individually performing vaginal inspections on their daughters to search for sperm. Their stated aim was to obtain evidence to determine if their daughters had engaged in sexual activity. These vaginal inspections are similar to bridal virginity testing, a practice which is a commonly conducted on Zulu girls in South Africa (Leclerc-Madlala, 2001). Bridal virginity testing, which refers to external hymen integrity inspection, has been described previously in other settings in Africa.

However, the current study is the first to report internal vaginal inspections. Male parents in the current study reported endorsing the cultural practice of virginity testing, but recommended it be performed by a healthcare professional as well as a traditional practitioner.

Participants in the present study stated that certain triggers provided the impetus for conversations between parents and adolescents about sexual health. For example, symbolic and practical gestures of trust (such as a gift of condoms) constituted prompts for conversations about sex that one adolescent in the study reported receiving favorably. Previous research provides examples of triggers resulting in mothers talking with their children about sexuality (Wamoyi, Fenwick, Urassa, Zaba, and Stones, 2010a). Wamoyi et al. (2010a) suggest that prompts for communication about sex could include using examples of relatives who had died of HIV, media (radio and television) programs that depict sexuality and HIV, and flyers about sexual and reproductive health services. These prompts are neutral ways of initiating discussions about intimate topics and should include sexual decision-making and condom use.

Male and female parent participants perceived that their children received information about sexual health at school. This perception was a barrier to successful parent-adolescent communication. In particular, parents found that their children avoided communication about sexual issues by stating that these topics had already been discussed at school. Even though sexual health education at school was perceived to be important, some parents reported that sex education had to be carried over into the home environment. Other parents perceived that sexual health education taught at school contradicted the messages they gave their children. Ahmed, Flisher, Mathews, Mukoma, and Jansen (2009) conducted a study among 15 teachers from high schools in the Western Cape, South Africa to understand their beliefs, attitudes and behaviors regarding sexual and reproductive health education. The

researchers found that the teachers were conflicted about HIV and sexual health education, regarding sexual health education as a contradiction of their values and beliefs. Most of the teachers supported the concept of abstinence, and therefore struggled to teach safer sex practices. Ahmed et al. (2009) thus emphasized the importance of having supportive parents who were actively involved with their children.

Some parent and counselor participants in the present study reported that life skills and decision-making had to be prioritized for teaching at school over sexual health. A study conducted in the KwaZulu-Natal Province in South Africa evaluated the influence of exposure to school-based life skills education on knowledge and behaviors associated with HIV/AIDS among 2 222 young people aged between14 and 24 from middle and secondary schools (Magnani et al., 2005). The results showed the effects of sexual-reproductive health knowledge, perceived condom use, self-efficacy as well as a larger effect on condom use at first and last sexual intercourse. The results suggested that school-based life skills education could be used in communicating critical information that is relevant to reduce the risk of HIV (Magnani et al., 2005).

Similar to findings by Soon et al. (2013), participants in the current study pointed out that parent-adolescent communication about sexual health was a cultural taboo, carried through from one generation to the next. For example, mothers would not have conversations about sexuality with their daughters because their own mothers had not engaged in such conversations with them when they were adolescents. Cultural taboos continue to be a barrier to sexual communication (Lebese et al., 2010). However, this barrier is now being challenged in light of the burden of HIV among young people in South Africa. Lebese et al. (2010) maintain that society is reluctant to openly confront issues of sexuality, a reluctance that is evident in poor

parent-adolescent and partner communication about sexual health. Lebese et al. (2010) conducted in-depth interviews and FGDs among 42 parents of adolescents in the Limpopo province, in areas showing high prevalence of teenage pregnancies and STIs. The aim of the Lebese et al. (2010) study was to explore parents' experiences of communication about sexual health with their children. Their findings showed that parent-adolescent communication about sexual health reduced misconceptions about sexuality and sexual health, as well as the consequences of sexual risks, specifically preventing pregnancy and STIs, including HIV/AIDS.

Bastien, Kajula, and Muhwezi (2011) reviewed studies of parent-child communication about sexuality and HIV/AIDS in sub-Saharan Africa. These authors pointed out that social and cultural norms demarcated boundaries with regard to communication about sexuality with young people and that historical factors shaped communication about sexuality (Bastien et al., 2011). For instance, a study conducted in Kenya among female high-school students aged 17 to 19, mothers of the female adolescent participants, and teachers, showed that tradition and religion were barriers to meaningful and open sex education and direct communication about sexual health (Mbugua, 2007). These findings are consistent with that in the present study, in which participants reported traditions being carried from one generation to the next, consequently inhibiting effective parent-adolescent communication about sexual health and sexuality. Bastien et al., (2011) recommend that multi-level community programs be developed to target such social and cultural barriers to facilitate better parent-adolescent communication.

Some mothers in the present study reported feeling comfortable discussing sexuality and sexual health with someone else's child. This finding suggests a more community-oriented way of educating adolescents about sexual health. However, many adolescents in the present study stated a preference for their own parents speaking with them about sexual health.

This finding, however, contradicts research conducted among adolescent girls aged 14 to 18 in Cape Town, who reported being more comfortable speaking with a stranger about sexual health than with someone from their own community (Lesch and Kruger, 2005).

Fathers participating in this study showed willingness to discuss sexual health with their children. However, they reported feelings of disempowerment when communicating with their adolescent children. Bastien et al., (2011) pointed out that young people prefer to communicate about sexuality with the parent of the same sex, while findings from other studies showed mothers as the preferred communicators about sexuality topics. For instance, a study conducted among 405 African American adolescents aged 13 to 15 and 382 mothers of adolescents revealed both female and male adolescents as more likely to discuss sexual topics with their mothers than with their fathers. Overall, discussions with fathers by adolescents of both genders were limited (Dilorio, Kelly, and Hockenberry-Eaton, 1999). However, male adolescents were more likely than female adolescents to discuss sex-based topics with their fathers. These results showed, overall, adolescents of both genders to be more comfortable discussing sex-related topics with their mothers than with their fathers.

Male parents perceived that parental disagreement over disciplining their children strained parent relationships. Moreover, they perceived adolescent disregard for parental authority as well as parent-adolescent distrust as negatively influencing their communication efforts about sexual health with their children. Parents also suggested they should be provided with the necessary skills to have such discussions with their children. Carlson and Tanner (2006) conducted a study among 150 parents to explore differences in parental roles, attitudes, and perceptions about the consequences of adolescents engaging in sexual activity. Their findings showed that parents were often not sufficiently confident about conveying sex-related

information to their children (Carlson and Tanner, 2006). Biddlecom et al. (2009) highlighted the importance of sexual communication responsiveness, in which parents have skills and confidence and feel comfortable in discussing topics related to sexual health with their adolescents. Biddlecom et al. (2009) found that participation in prevention programs facilitated discussions about sexuality. Carlson and Tanner (2006) have suggested a number of programs aimed at empowering parents to engage in conversations about sexual health with their children. Participation in such programs also has the advantage of equipping parents with correct knowledge about sexual and reproductive health so that children will regard parents as credible sources of information.

Parent-adolescent communication about sexual health is influenced at the microsystem, mesosystem, and exosystem of an adolescent. In particular, traditions and community norms located in the exosystem hinder conversations between parents and their adolescent children. Many parents and adolescents acknowledged the importance of parent-adolescent communication to reduce HIV risk behaviors among adolescents.

4.5.7 The role of the media.

Parent participants commented on the negative aspects of television programs, including programs with American perceptions about sexual relationships. For example, the portrayal of dating one's mother-in-law as acceptable behavior in one such television program was alluded to as non-African. According to Arnett (2007), many American television programs depict romantic and sexual relationships that contradict what parents wanted to teach their children. For instance, sexual relationships portrayed on television mostly occur between unmarried couples, without the use of condoms (Arnett, 2007). This is of concern in the context of South Africa,

given that many parents do not openly discuss sexual relationships with their adolescent children (Lebese et al., 2010), with children then likely to adopt the values displayed in television content.

International studies have shown that exposure to sexual content in movies can influence later sexual risk behavior (Brown and Strassburger, 2007; Collins et al., 2004; O'Hara, Gibbons, Gerrard, and Sargent, 2012; O'Hara, Gibbons, Gerrard, and Sargent, 2013). For example, a national longitudinal study conducted by Collins et al. (2004) with 1 792 adolescents in the United States showed that viewing sexual content on television (visual depictions and talks about sex) was associated with risky sexual behaviors. Their results showed an association between viewing sexual content on television and early initiation of sexual activity, including non-coital activities, among adolescents aged 12 to 17. These findings support concerns expressed by parents in the present study about the negative influence of television programs.

Fathers reported that pornographic content was usually aired on television late at night. At the time of holding the FDGs for the present study, a free-to-air channel in South Africa (ETV), was broadcasting late night movies with pornographic content. These movies were subsequently stopped and, at the time of this writing, the screening of pornographic programs on television, was no longer the case.

Parents in this study were concerned about television content encouraging undesirable traits in their children. Specifically, parents reported that the media portrayed girls in sensual attire, while boys were portrayed as having multiple partners and wealth. According to Arnett (2007), parents should indeed be worried about how girls are portrayed in the media, because there is evidence to show that girls' images of their bodies are influenced by the media's portrayal of young girls. The ways in which the media portrays young men and women have been shown to influence what young people aspired to be. Children and adolescents are

particularly vulnerable to messages and images conveyed through the media, because they often cannot differentiate between what they view in the media as constructions of reality and what occurs in the real (Morris and Katzman, 2003). Morris and Katzman (2003) conducted a review on the influence of the media on eating disorders among adolescents. Their results showed that the media portrays a beauty standard of the thin female ideal and the muscular male body ideal. These images are associated with body dissatisfaction as well as psychological and eating disorders (Morris and Katzman, 2003). According to Van Vonderen and Kinally (2012), these ideal body images portrayed in the media are usually unattainable, unrealistic, and unhealthy. Thus, Huston et al., (1998 cited in Donnerstein and Smith, 2001, p. 302) propose that parents and teachers teach adolescents "critical viewing skills" so they learn to interpret media content realistically.

Counselor participants in the present study perceived that the media could be used to influence adolescents positively. In South Africa, mass media campaigns were widely used with the aim of decreasing behaviors associated with HIV acquisition and transmission (Peltzer et al., 2012). At the time of conducting the present study, loveLife and Soul City were examples of popular media campaigns for HIV/AIDS knowledge and prevention. LoveLife and Soul City have been successful in increasing awareness about HIV/AIDS and reducing risk for HIV, even though their interventions have not significantly decreased HIV incidence among adolescents in South Africa (Taylor et al., 2010). Taylor et al. (2010) investigated the influence of cumulative exposure to the loveLife program among 1 294 participants aged 15 to 40 in a rural area in Kwa-Zulu Natal Province, South Africa. The investigators found the cumulative exposure to loveLife interventions to be significantly associated with increased condom use at last sex ($p < 0.005$). Cumulative exposure implies that participants were exposed to a combination of the LoveLife

interventions, including television and radio messages, billboards, a free monthly magazine for young people, special school sports and community events, a peer education program, classroom programs, and support from healthcare professionals in the public sector (Taylor et al., 2010).

The findings of the present study and evidence from the literature showed that the media influences adolescent risk behavior in the exosystem of ecological systems theory. Many participants discussed the negative aspects of the media. However, the media can also be used to influence adolescents in a positive manner to reduce HIV risk behaviors.

4.5.8 Discipline and perceived government influence.

Parent and counselor participants in the present study spoke about discipline within the context of respect shown towards parents. In particular, parents perceived that their adolescent children disrespected them and reported therefore being unable to discipline them. Some parents associated disrespect with the way their children spoke to them. For example, adolescents were disrespectful towards the elderly. In contrast to the parents' reports, counselors stated that both parents and children need to show respect towards each other.

Successful discipline is the outcome of mutual agreement between parent and child (WHO, 2009). However, adolescence is a phase when many children disagree with their parents. According to Zottis et al. (2014), parent-child conflict does indeed increase during adolescence. While parents in this study may have perceived such disagreement as disrespect shown by adolescent children towards them, such conflict may be part of normal adolescent development. Parents require disciplinary practices to rear their children (Zottis et al., 2014). Discipline can be defined as a way of imposing values and normative behavior for effective parenting of children (Halpenny, Nixon, and Watson, 2010). Disciplinary practices are aimed at helping children gain

the necessary skills to develop judgment, boundaries, self-control, self-sufficiency, and positive social conduct (Butchart, Phinney Harvey, Mian, and Fürniss, 2006). Research conducted in Brazil among 247 children and adolescents aged 10 to 15 in public schools showed discipline practices to be associated with parenting style (McKinney, Milone, and Renk, 2010). Consequently, the combination of discipline and parenting style is related to outcomes such as emotional adjustment (McKinney et al., 2010), depression, and perpetration of bullying (Butchart et al., 2006) among adolescents.

Parent participants in this study stated that current South African laws protected children to the extent that parents could no longer discipline their children. They reported that their adolescent children threatened them with their constitutional rights and the law to avoid being disciplined. As such, parents make reference to the Constitution of 1996 and the Children's Rights Act 38 of 2005, both which advocate for freedom from violence, abuse, degradation, exploitation, maltreatment, and neglect for every child (Children's Act 38, 2005). Prior to the implementation of these pieces of legislation, parents and teachers were able to use corporal punishment on children in South Africa with no negative consequences to the former (Morrel, 2001). Corporal punishment is the use of physical force as a means of controlling a child (Durrant, 2005; Halpenny et al., 2010; Strauss and Paschall, 2009). Despite the banning of corporal punishment in 1996, children are still exposed to corporal punishment. For instance, the 2011 census data showed that 17.2% of the sample of school-going learners reported an experience of corporal punishment (Stats SA, 2012). A shortcoming of the census data is that participants were not asked whether they had reported their experience of corporal punishment to the police or school authorities. Further, the census data did not report if learners had experiences

of corporal punishment in the home or ascertain if they were aware that corporal punishment had been abolished.

There was silence among parent participants in the study concerning the use of corporal punishment as a discipline strategy. At the time of writing, some parents in South Africa still used physical punishment as a means of disciplining their adolescent children (Bhana, 2012). However, children are now able to report their parents (and teachers) to the police in such instances. Parents in the present study reported experiencing threats by their children to have them reported to the police when attempting to discipline them with physical force. The legislation put in place by the government in 1996 and 2005 respectively occurred as a result of outcry against gross human rights violations against children in South Africa that had occurred prior to 1996. However, these Acts do not remove parents' rights to discipline their children. Parents are able to discipline their children as long as they do not use any form of corporal punishment. Based on the legislation around children's rights, the parents' comments indicated a lack of awareness of their own rights as parents as regards disciplining their children.

Parental discipline of adolescent children is influenced at all levels of the ecological systems theory. However, participants in the present study placed greater emphasis on the macrosystem influence of the government and the mesosystem influence of parents' interpersonal relationships with their children. However, microsystem influences, such as parenting style, also affect discipline strategies parents use on their children.

4.5.9 Group sex events among adolescents.

A group sexual event, commonly referred to as group sex, occurs when individuals have sex with more than one person, not necessarily at the same time, but within a specific time period

(Friedman, Mateu-Galebert, and Sandoval, 2011). The occurrence of group sexual events among adolescents was an unanticipated finding in the present study. Adolescent and counselor participants reported the occurrence of consensual group sex events mostly for recreation purposes among adolescents. At the time of conducting the present study, these types of group sex events had not yet been investigated in South Africa. However, Jewkes et al. (2006) and Wood (2005) have described group rape in the context of sexual violence.

Group sex events have been described among adolescents in the United States. Rothman et al. (2008) conducted a qualitative study among 20 boys aged 14–22 years. The participants reported "running a train", implying spontaneous or planned sexual activity among multiple young men and one young woman (Rothman et al., 2008, p. 102). The present study findings are consistent with the Rothman et al. (2008) study, in that adolescents coined words or phrases as a form of code aimed at discretion when talking about group sex events. Another similarity in findings between the Rothman et al. (2008) and the present study was that boys perceived that girls could be coerced to participate in group sex events through alcohol and drug use. Contrary to the Rothman et al. (2008) study, though, some male adolescents in the present study connected these events with sexual assault. The Rothman et al. (2008) study's main limitation is that it did not present a female perspective. Female adolescents in the present study reported group sex events within the context of consensual, planned events for recreational purposes among adolescents. In addition, female adolescents included couple swapping in their discussion of such events. Couple swapping typically occurred at parties lacking adult supervision.

Group sex events among adolescents are influenced by the microsystem and mesosystems of an adolescent. Adolescent girls may participate in these events willingly or

unwillingly. Even in situations of peer influence among adolescents, adolescents can choose whether or not to willingly participate in group sex events.

4.6 Summary of chapter

Participants in the present study reported on many factors that may place adolescents at risk for HIV in Soweto. All the key themes, with the exception of group sex practices, have been previously identified in the literature as risks for HIV. However, the data provided for a nuanced understanding of these risks. Many themes showed the gendered aspects of addressing risk for HIV among adolescents. The findings also highlight the importance of interventions and support for adolescent parents in efforts to reduce risk for HIV and pregnancy among adolescents. Group sex practices were an unanticipated risk factor that was raised by adolescents. This is the first study to report on the occurrence of group sex events in South Africa. All the themes discussed in this section could be located within multiple levels of ecological system theory. Thus, the findings provide evidence for a multi-level approach to reduce risk for HIV among adolescents. The findings of this chapter have important implications for the adaptation of the CDC risk reduction counseling intervention. These implications will be discussed in Chapter Six.

Chapter Five

Phase 1b: Cross-sectional Survey

5.1 Introduction

This chapter presents the methodology, results, and discussion of Phase 1b of the present study. The results for Phase 1b will consist of the following: validation of the HIV risk scale, sample demographic information, reliability analyses of the scales used, correlation matrix of the continuous predictor and dependent variables, and multiple linear regression analyses. The chapter concludes with a discussion of the results.

5.2 Methodology of Phase 1b: Cross-sectional survey

I used a quantitative methodology to conduct Phase 1b. Fieldworkers completed structured face-to-face and paper and pencil questionnaires with participants.

5.2.1 Sample.

The sample consisted of 16–18-year-old adolescent ($N = 505$) residents in Soweto, Johannesburg. Members of PHRU study staff selected a stratified convenience sample of adolescents from the Soweto population from October 2008 to March 2009. Soweto consists of about 40 townships or areas (City of Johannesburg, 2010). Each area, also known as a township of Soweto, was a stratum.

5.2.2 Procedures for Phase 1b.

PHRU study staff used a convenience sampling strategy in each area or stratum, and purposively recruited 15 adolescents per area. The principal investigators for the larger NIMH study specifically decided to oversample for adolescent girls who are disproportionately affected by HIV in South Africa (Shisana et al., 2009). The number of participants was divided into a 60:40% split (8 girls and 7 boys) per area.

Field workers approached potential participants on the streets, in the immediate vicinity of schools and shopping malls, at HIV and non-HIV youth organizations and at shops. Fieldworkers approached a total of 852 potential participants and invited them to participate in the study. Of the 852 individuals approached, 17% (n = 152) refused to participate and 22% (n = 193) did not show up for appointments or gave incorrect telephone numbers, yielding a total of 506, the number which constituted the final sample for Phase 1b. Field workers informed participants about the study, invited them to participate and asked them for permission to be contacted telephonically to participate. Fieldworkers then wrote down the telephone numbers of potential participants. Fieldworkers contacted participants telephonically to confirm their interest in participating in the study and to arrange a suitable time to complete the questionnaire. Participants with cellular phones received reminders via text messages.

Participants gave written consent or assent, depending on their age, prior to participation. Members of PHRU study staff verified the ages of all participants via their identity or birth certificate documents. Fieldworkers gave parent consent forms to adolescents to obtain a parent's signature. They then followed up with these parents telephonically to verify that they had understood and signed the consent forms. Fieldworkers approached parents for consent if recruitment took place close to where the adolescents lived. If parents required additional

information, PHRU study staff members contacted them telephonically or visited them in person. Parents then provided written consent for participants aged below 18. Fieldworkers completed face-to-face pencil and paper questionnaires with participants at a private venue at the PHRU. Questionnaire administration varied from 60 to 90 minutes. Fieldworkers reimbursed participants with ZAR50 to cover their transport costs. Parents were not reimbursed for signing consent forms.

5.2.3 Training of fieldworkers

A total of 15 fieldworkers, all conversant in the local languages, namely, isiZulu, SeSotho, Venda, and Shangaan, conducted the piloting and fieldwork. Among these, were 11 women and four men, aged 19–35. Of the fieldworkers, 11 were university students in the process of completing undergraduate degrees and four were high school graduates. Fieldworkers attended four days of training that focused on good clinical practice guidelines, interviewing techniques, informed consent procedures, questionnaire administration, and piloting of the questionnaire. Fieldworkers had the opportunity to role-play the informed consent and questionnaire delivery processes. This training occurred over a five-day period at the PHRU offices prior to initiation of the study.

5.2.4 Questionnaire development.

The questionnaire was developed in the course of several meetings over a six-month period to ensure that the items and scales selected were applicable to the South African setting. The questionnaire development team consisted of a social scientist, a pediatrician, a clinical psychologist, social workers, a nurse, psychology Masters students, and counselors. As stated

earlier in Chapter Four discussing Phase 1a, I was the social scientist on the team. The main topics for the questionnaire were informed by ecological systems theory (Bronfenbrenner, 1994), the research team's experience, literature related to HIV risk among adolescents, and the qualitative findings of Phase 1a. Table 2, below, shows how the variables selected fit the ecological systems theory. I presented the questionnaire to the PHRU's adolescent HIV prevention community advisory board (CAB) for feedback.

Table 2

Ecological model mechanisms

Eco-systemic levels	Variables
Individual level	Demographic characteristics Substance use Depression Condom use self-efficacy Experience of unwanted sexual experiences
Dyad	Age group of partners Partner pressure to have sex Experience of unwanted sexual experiences Experience of partner violence
Family	Parents alive Parent-adolescent communication
Community/peers	Attitudes about sex
Institution	Adaptation of an HIV prevention program: CDC risk reduction counseling intervention

5.2.5 Pilot testing of the questionnaire.

Fieldworkers were given the opportunity to pilot test the instrument following their training. They tested the instrument among 30 participants who met the study eligibility criteria. Each fieldworker had the opportunity to administer the consent form and questionnaire on two occasions during the pilot test. Participants completed written consent or assent according to

their age, with those under 18 requiring written parental consent. Fieldworkers administered the questionnaire and requested feedback from participants. I made final changes to the questionnaire based on feedback from the adolescent CAB and results of the pilot test conducted by the fieldworkers.

5.2.6 Research instrument.

The questionnaire consisted of standardized and non-standardized scales (see Appendix B). I have provided citations of previously published items. The items, listed below, were used in the analysis for Phase 1b of the present study.

5.2.6.1 Demographic information.

The questionnaire development team developed most of the items for the demographic questionnaire. This section assessed gender (male, female), age (actual age entered), language, ethnicity, housing structure (brick house owned or rented by family, flat owned or rented by family, RDP house, hostel, shack in someone's backyard or in an informal settlement), schooling location (in Soweto, out of Soweto), head of household (female aged 18–60, male aged 18–60, female older than 60 years and male older than 60 years), mother alive (yes, no, don't know), father alive (yes, no, don't know), and socio-economic status. For mother and father alive, the response option "don't know" was coded as system missing variables. Housing was categorized into brick structure, RDP or flat, and shack. The variables housing and mother and father alive were entered into the regression analysis as categorical independent variables.

5.2.6.2 Sexual behavior.

Items in this section were based on the findings of the FGDs from Phase 1a, which formed the basis for the items in this section in addition to the research team's experience and previously published items. This section assessed sexual orientation (heterosexual, lesbian, gay, bisexual (LGB), sexual behaviour (see below), and partner characteristics (see below).

Sexual behaviour was assessed with the items (see Appendix B): ever had vaginal sex (yes, no); age of first vaginal sex (no sex, ≥15 years, <15 years); condom use at last sex (yes, no) (from Sikkema et al., 2005), and ever received gifts in exchange for sex (yes, no) and ever given gifts in exchange for sex (from Hendriksen et al., 2007).

Partner characteristics were assessed through the following items: age of first partner and number of current partners (from Sikkema et al., 2005), age ranges of previous and current partners (16–21, 22–27, 28–33, 34–40, and over 40). For age ranges of current partners, participants selected one option. Participants endorsed the response option for current partner on the questionnaire. Those who did not have a current partner/s endorsed the response option for a previous partner. The ages were dichomotized into "16–21" and ">21" years, because there were fewer responses among those with partners >21years.

Another variable was pressure from partners to engage in sex. The response options for this variable were: no pressure at all, not much pressure, some pressure, and a lot of pressure. Pressure to engage in sex was categorised into "no pressure" and "pressure". "Pressure" included "some pressure" or "a lot of pressure".

5.2.6.3 Substance use behavior.

Items were adapted from the RHRU Youth survey conducted in 2003 (from Hendriksen,

et al., 2007) and a randomized control trial conducted by one of the principal investigators (from Sikkema et al., 2005). Ever having sex when under the influence of alcohol (yes, no) was entered in the regression analysis as a dichotomous independent variable.

5.2.6.4 Condom use self-efficacy.

This was assessed through an item that assessed condom use self-efficacy (from Pettifor et al., 2004a). Participants were asked: "Would you be able to use a condom every time you have sexual intercourse?" The response options were: "no", "probably no", "probably yes", "yes". The response options "no" and "probably no" were combined as "no". The response option "probably yes" and "yes" were combined as "yes".

5.2.6.5 Parent-adolescent communication

The parent-adolescent communication scale (PACS) is a standardized scale used to assess frequency of communication between parent and child in the past six months regarding five specific items. These items include: sex, how to use condoms, STIs, HIV/AIDS, and pregnancy (DiClemente et al., 2001). For the Soweto context, we included the phrase "getting someone pregnant" with the pregnancy item. The response options for the parent-adolescent scale were: never, rarely, sometimes, and often. Items were summed to create a continuous scale score. Internal consistency for this scale has been shown to be good, with a Cronbach alpha coefficient of 0.88 (DiClemente et al., 2001). This internal consistency was obtained among a sample of 522 sexually active, African-American females from low-income neighborhoods in the United States, aged 14–18. The variable parent-adolescent communication was entered in the analysis as a continuous and independent variable.

5.2.6.6 Emotional distress and functioning.

The Children's Depression Inventory (CDI) is a 27-item self-report assessment of the severity of depressive symptoms for school-aged children and adolescents with a score of 0–2 per item (Kovacs, 1992). There are five subscales in the inventory, namely, anhedonia (decreased ability to experience joy), negative self-esteem, ineffectiveness, interpersonal problems, and negative mood. The adolescent being evaluated selects one of three possible responses that most closely describes him or her over the preceding two weeks. The items were summed to create a scale score. Internal consistency for this scale was found to be acceptable with a Cronbach alpha coefficient of 0.86 (Aneshensel and Sucoff, 1996), indicating good internal consistency. This Cronbach alpha coefficient was obtained among a community-based sample of 877 adolescents aged 12–17 in the United States. Depression was entered into the analysis as a continuous independent variable.

5.2.6.7 Experience and perpetration of violence.

Participants were asked about experiences of violence (Pettifor et al., 2004a; Sayles et al., 2006). These items included: "Have you ever experienced an act of violence?"; "Have you ever been hit, slapped or physically hurt on purpose by a boyfriend/girlfriend?"; "Have you ever had sexual intercourse because someone used physical force or threatened you to have sex with him/her?" Item responses were "yes" and "no". These items were entered in the analysis individually as dichotomous independent variables.

5.2.7 Data capturing.

The PHRU uses Datafax® as the principal data management software for all of its

research projects. A data manager from the PHRU's data department created a dedicated study database using the DataFax® data management system. Members of the PHRU study staff faxed the completed 525 questionnaires into the study database. A data-capturer verified the data by comparing information captured against the questionnaire forms. The data manager conducted quality control checks and cleaned the data for analysis.

5.2.8 Data analysis.

The answers to the survey were assigned numerical values and analyzed using the program Statistical Package for the Social Sciences (SPSS v. 20) (IBM Corp., Released 2011). Demographic variables were analyzed using frequency and descriptive statistics. Cronbach's alpha internal reliability coefficient was computed for each scale. For the present study, a value >0.7 was regarded as acceptable (Field, 2009). I examined the data for deviations from normality and variance distribution. The results are shown in section 5.3.3. Missing values were entered as "user missing" data in SPSS.

5.2.9 Development of an HIV risk scale.

There is no consistent way of analyzing sexual risk for HIV. Risk for HIV acquisition consists of a complex number of factors (Eaton et al., 2003; Pettifor et al., 2013). However, many researchers have tended to focus on correlates of one factor, usually condom use or sexual activity, related to HIV risk (Dietrich et al., 2013; Hendriksen et al., 2007; Jama Shai, Jewkes, Levin, Dunkle, and Nduna 2010; Zembe et al., 2012; Shrier, Harris, Sternberg, and Beardslee, 2001). Early sexual debut has also been investigated as a proxy for HIV acquisition (Pettifor et al., 2009). Puffer et al. (2011) combined items that assessed sexual activity (ever had

vaginal/anal sex, condom use, number of partners) to yield a composite measure of HIV risk behavior.

The definition of "risk for HIV" used in the present study took into account the complex nature and multiple levels of influence on risk for HIV in the South African context. I defined HIV risk by including variables from the FGD and cross-sectional survey (from Appendix B) data that increased risk of acquiring HIV among adolescents in South Africa. I used these variables to develop an HIV risk scale by including the following variables: (1) age at first sex; (2) number of partners; (3) giving gifts in exchange for sex; (4) receiving gifts in exchange for sex; and (5) condom use self-efficacy. Table 3 () lists the scoring of these items. A high Cronbach alpha coefficient (0.79) was obtained when these variables were combined, thus indicating good internal consistency of the combined variables. The total score of the HIV risk scale was used as a continuous dependent variable in the hierarchical regression analysis. The variables listed above as (1) age at first sex, (2) number of partners, (3) giving gifts in exchange for sex; (4) receiving gifts in exchange for sex; and (5) condom use self-efficacy are discussed in more detail below in sections 5.2.9.1 to 5.2.9.3. I provide a justification for using the variables listed above to develop the HIV risk scale.

5.2.9.1 Age of first sex.

Early sexual debut was defined as first sexual intercourse experienced before the age of 15 years (Pettifor, et al. 2009, Peltzer, 2010, Shisana et al., 2014). In South Africa, sexual debut prior to the age of 15 years is a risk factor for HIV because it is associated with frequent sexual intercourse, irregular contraceptive use, more sexual partners and unplanned pregnancies (Koenig et al., 2003; Pettifor et al., 2009).

5.2.9.2 Number of partners.

Having multiple sexual partners is a risk for HIV acquisition if condom use is inconsistent and a sexual partner is HIV infected (Zembe et al., 2012). For individuals who have multiple sexual partners, condom use is usually lower with main partners and highest with once-off partners (Zembe et al., 2012).

5.2.9.3 Transactional sexual relationships.

Young women, including adolescent girls, are particularly vulnerable to HIV infection in sub-Saharan Africa (UNAIDS, 2012) owing to transactional sexual partnerships, usually with older men (Dunkle et al., 2004; Leclerc-Madlala, 2008; Shisana et al., 2014). It is presumed that women who have transactional sexual partnerships will have lower relationship power and, consequently, less power to negotiate condom use (Shisana et al., 2009).

5.2.9.4 Condom use self-efficacy.

Condom use self-efficacy is associated with a higher likelihood of condom use among adolescents (Hendriksen et al., 2007). An adolescent's belief in his or her capacity to use condoms will likely influence actual condom use (Hendriksen et al., 2007, p. 1241). Thus, adolescents who do not believe they have the capacity to use condoms are likely to be at greater risk for not using condoms.

Table 3, below, shows all of the variables that were combined to develop the HIV risk scale. The scoring for each variable is noted.

Table 3

Scoring of variables to develop the HIV risk scale

Variable	Items in questionnaire	Responses and Scoring
(1) Age at first sex	Have you ever had vaginal sex with someone (that is to say when the penis was in the vagina)? Yes ☐ No ☐ **IF YES TO ABOVE:** How old were you when you first did this? ____	0 = no sex 1 = ≥15 years 2 = <15 years
(2) No. of partners	How many boyfriends/girlfriends do you currently have? Zero One More than one	0 = 0 1 = 1 >1 = 2
(3) Recipient of transactional sex	Did you ever have sex with someone so that they would give you material or any other kind of support, such as money, presents, alcohol, food, clothes, better grades, transportation , etc. in exchange? Yes ☐ No ☐	0 = No sex 1 = No 2 = Yes
(4) Provider of transactional sex	Have you ever given someone material support such as money, presents, alcohol, food, clothes, transportation, etc. in exchange for sex? Yes ☐ No ☐	0 = No sex 1 = No 2 = Yes
(5) Condom use self-efficacy	Would you be able to use a condom every time you have sexual intercourse? No ☐ Probably No ☐ Probably Yes ☐ Yes ☐	1 = No 2 = Yes

I used a bivariate correlation to determine whether there was a correlation between the independent and dependent variables. Multiple regression analysis was used to determine the relationship between the dependent variable HIV risk (as measured by the HIV risk scale) and the independent variables. The independent variables were: ever receiving pressure from partners to have sex, ever having had the opportunity to have sex but refused, ever having been physically hurt to have sex, ever having been threatened to have sex, ever having been forced to have sex,

the age group of partners, type of housing, ever having sex when under the influence of alcohol, having a mother alive, having a father alive, depression, and parent-adolescent communication.

5.2.10 Summary.

The above section presented the methodology used to conduct the cross-sectional survey. A composite HIV risk scale was developed based on the literature, the results of which were presented in Chapter Four of this dissertation, and the experience of the research team. Next, I shall describe the results of Phase 1b.

5.3 Results of Phase 1b

In this section, I present the validation of the HIV risk scale developed, sample demographic information, reliability analyses of the scales used, correlation matrix of the continuous predictor and dependent variables, and multiple linear regression analyses.

5.3.1 Reliability of continuous variables.

The internal consistencies for continuous variables are shown in Table 4 below. The Cronbach alpha coefficients are uniformly high for all variables.

Table 4

Cronbach alpha coefficients for continuous variables

Variable	Cronbach alpha coefficient
HIV Risk Scale	.79
Depression	.79
Parent-adolescent communication	.79

5.3.2 Demographic characteristics.

Demographic characteristics are displayed in Table 5, following. The sample consisted of 506 adolescents with a mean age of 17 years (interquartile range [*IQR*]: 16-18). More than half the participants were female (59%, *n* = 298). Approximately half (50%, *n* = 253) the participants spoke IsiZulu and most (90%, *n* = 449) attended schools in Soweto. Most participants (90%, *n* = 457) lived in formal housing and almost all (98%, *n* = 497) obtained drinking water from a tap in the home. The mean number of people living in a household was 5.7 (*IQR*: 4–7). More than half the sample (59%, *n* = 299) reported that both their parents were alive. Half the households were female-headed (50%; *n* = 253), mainly headed by mothers (64%, *n* = 163).

The majority of the sample (92%, *n* = 464) reported heterosexual orientation. Half the sample (52%, *n* = 262) reported having had sex at least once in their lives. Of those who were sexually active, 64% (*n* = 168) reported that they always used a condom when having sex. The mean age of sexual debut for this sample was 16 for boys and 17 for girls.

Table 5

Demographic characteristics of 506 adolescents in Soweto aged 16–18

Variable description	Variable categories	*N*	%
Mean age (*IQR*)	17.1 (16–18)	506	100
Gender	Male	208	41
	Female	298	59
Schooling area	In Soweto	449	90
	Out of Soweto	49	10
Parental status	Both parents alive	299	59
	One parent alive	167	33
	Both parents dead	27	8
Parental marital status	Married	174	39
	Never married	182	40
	Other	95	21
Head of household	Female (18–60)	253	50
	Male (18–60)	167	33
	Female (>60)	62	12
	Male (>60)	22	5
Mean no. of people living in household (*IQR*)	5.7 (4–7)	506	100
Source of drinking water	Tap in home	497	99
	Community tap	7	1
Sexual orientation	Heterosexual	464	92
	Lesbian, Gay, Bisexual	42	8

Notes: 1. The totals may not equal the sample size due to missing values
2. *IQR* – interquartile range

5.3.3 Summary of predictor variables.

Table 6, following, shows the summary statistics for the predictor variables. The results show that almost half ($N = 240$, 48%) the participants had ever been pressured by partners to have sex, 68% ($N = 342$) had ever been threatened to have sex, and that 5% ($N = 24$) of participants had ever been forced to have sex.

Table 6

Distribution of categorical predictor variables

Variable	Response	Overall		Males		Females	
		N	%	*n*	%	*n*	%
Pressure to have sex	Yes	240	48	109	53	131	45
	No	259	52	98	47	161	54
Opportunity for sex and refused	Yes	342	68	134	64	208	70
	No	162	32	74	36	88	30
Physically hurt for sex	Yes	87	17	29	14	58	20
	No	417	83	178	86	239	80
Threatened to have sex	Yes	342	68	134	64	208	71
	No	162	32	74	36	88	29
Forced to have sex	Yes	24	5	13	6	11	4
	No	475	95	194	94	281	94
Age group of partners	16–21	411	90	188	96	223	85
	>21	46	10	7	4	39	15
Type of housing	Brick structure	423	85	174	85	249	85
	RDP/Flat	30	6	17	8	13	4
	Shack	45	9	13	6	32	10
Sex when having alcohol	Yes	85	27	57	37	28	17
	No	235	73	98	63	137	83
Father alive	Yes	330	69	146	72	184	67
	No	146	31	57	28	89	33
Mother alive	Yes	435	86	175	85	260	88
	No	68	14	31	15	37	12

Note: Totals may not equal 506 because of missing variables.

Table 7, on the following page, shows the descriptive data of continuous variables. The mean scores are: 6.07 for HIV risk, 11.99 for parent-adolescent communication, and 9.59 for depression.

Table 7

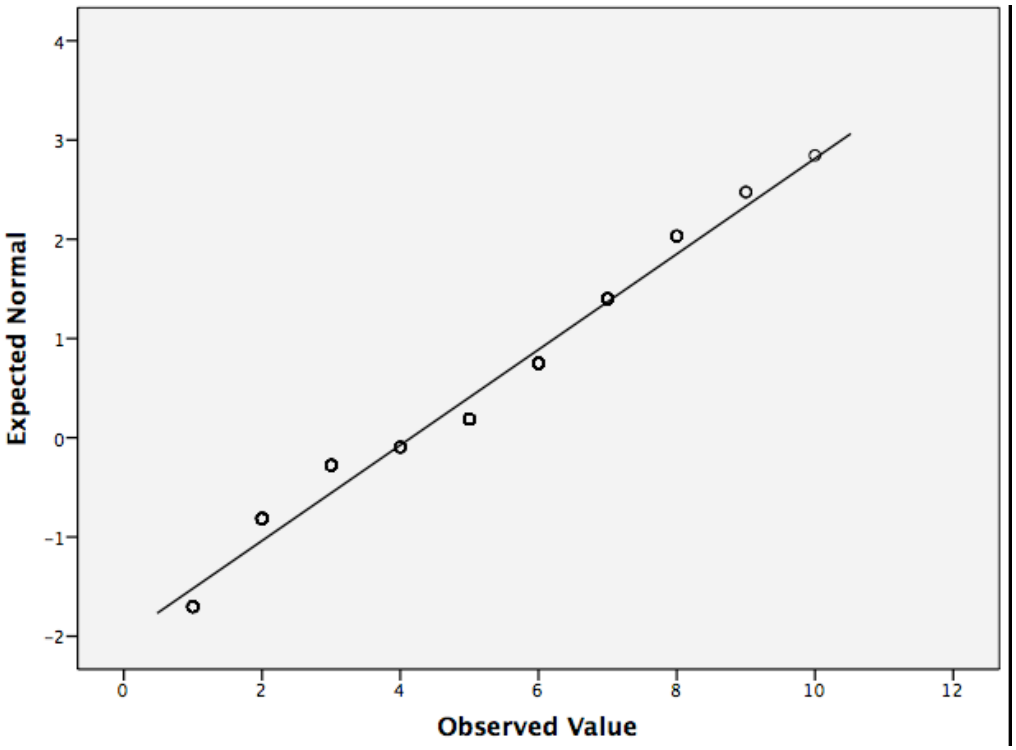
Distribution of continuous variables

Variables	Type of variable	Mean	SD
HIV risk	Dependent variable	6.07	2.90
Parent-adolescent communication	Independent variable	11.99	4.21
Depression	Independent variable	9.59	6.32

Graphs 1–3, following, show the Q-Q plots for HIV risk, parent-adolescent communication and depression respectively. Graph 1, below, shows the Q-Q plot for HIV risk. The graphs appear to indicate that the distributions of the continuous variables deviate from the normal distribution.

Graph 1

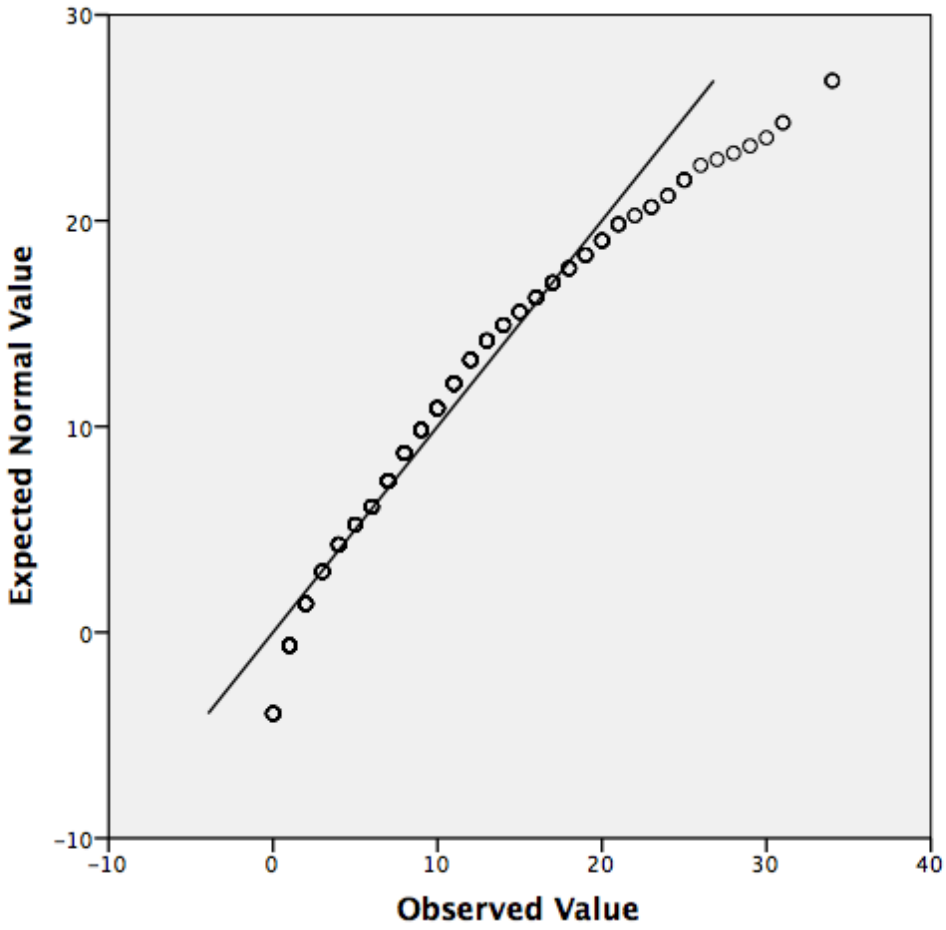
Q-Q plot of HIV risk



Graph 2, below, shows the Q-Q plot for depression.

Graph 2

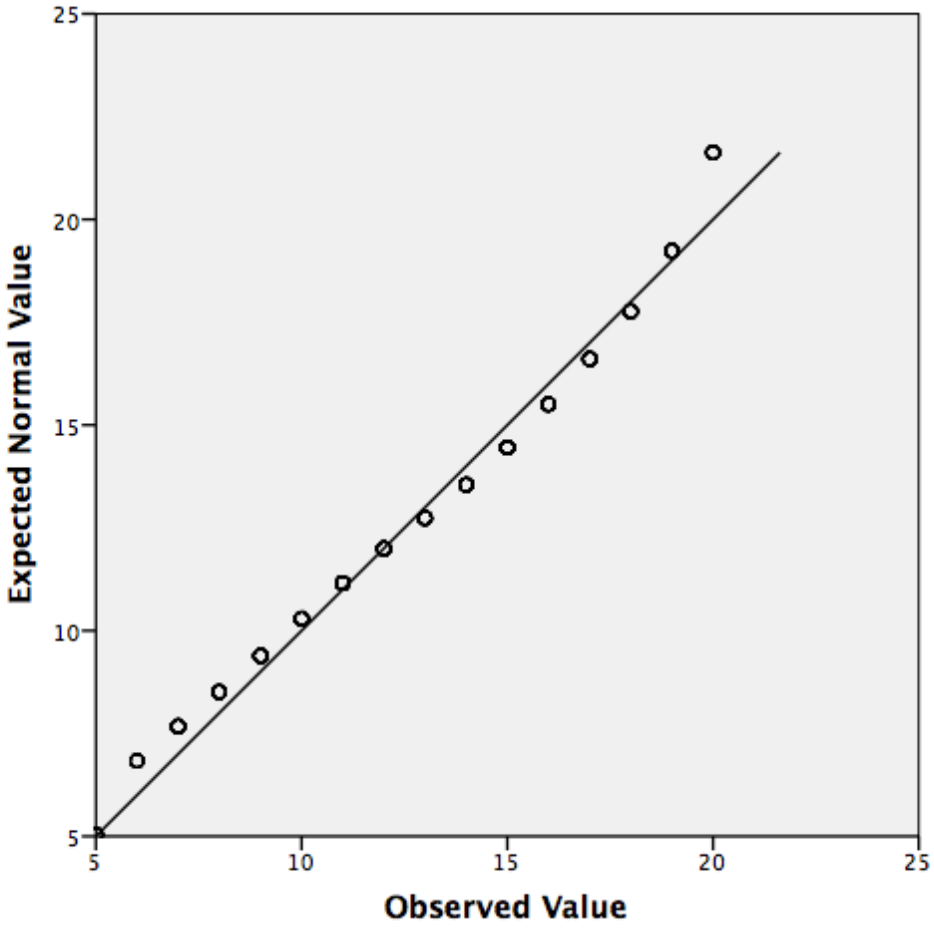
Q-Q plot of depression



Graph 3, below, shows the Q-Q plot for parent-adolescent communication

Graph 3

Q-Q plot of parent-adolescent communication



I conducted the Kolmogorov-Smirnov and Shapiro-Wilk tests of normality for all three continuous variables. The results are displayed in Table 8, following, and indicate that the variables deviate from the normal distribution because the significance values are less than .05.

Table 8

Test of normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	**Df**	**Sig.**	**Statistic**	**df**	**Sig.**
HIV risk	0.09	450	.00	.96	450	.00
Depression	.11	450	.00	.94	450	.00
PACS	.20	450	.00	.91	450	.00

Notes: 1. a = Lilliefors Significance Correction
2. PACS = Parent adolescent communication about sex

Although, Field (2005) advises against it, I transformed the variables using the log transformation. I ran two regression analyses. Section 5.3.5 shows the regression analysis using the untransformed continuous variables. Section 5.3.6 shows the regression analyses with the log transformed continuous variables.

5.3.4 Correlation matrix of continuous variables.

Table 9, below, shows the bivariate correlation of continuous variables. HIV risk was significantly and negatively associated with parent-adolescent communication about sexual health.

Table 9

Bivariate correlation of continuous variables

Variable	HIV Risk	Depression	PACS
HIV Risk	1		
Depression	.058	1	
PACS	-.032	-.200**	1

Note: PACS = Parent adolescent communication about sex

5.3.5 Hierarchical linear regression.

I entered the variables in the model based on the literature on risk for HIV among adolescents. Depression was entered as a predictor in model 2 while parent-adolescent communication was added in step 3 as these variables have shown mixed results about their association as risk factors for HIV. I used a three-step hierarchical multiple regression model. In Step 1, the following independent variables were entered: ever receiving pressure from partners to have sex, ever having had the opportunity to have sex but refused, ever having been physically hurt to have sex, ever having been threatened to have sex, ever having been forced to have sex, the age group of partners, type of housing, ever having sex when under the influence of alcohol, having a mother alive, and having a father alive. As can be seen in Table 11, in Step 1 (Model A), the only significant predictor was ever being forced to have sex, which explained 13% (R^2 = 0.13; F (10, 238) = 3.45, p = 0.00) of the variance of risk for HIV.

In Step 2, depression was added to the model. As can be seen in Tables 10 and 11, the linear combination of ever being threatened to have sex and ever forced to have sex predicted 14% of the variance of risk for HIV (R^2 = 0.14; F (11, 237) = 3.44, p = 0.00).

In Step 3, parent-adolescent communication about sexual and reproductive health was added to the model. In Step 3, the linear combination of ever being threatened to have sex and ever forced to have sex remained significant and still predicted 14% of the variance of risk for HIV (R^2 = 0.14; F (12, 236) = 3.14, p = 0.00). The linear combination of being threatened to have sex and being forced to have sex predicted a positive relationship with HIV risk in the hierarchical regression models.

Table 10

Summary of hierarchical multiple regression analysis for variables predicting HIV risk

Model	*R*	R^2	ΔR^2	Std Error	*F*	*df*1	*df*2	*P*
A	.36	.13	.09	.88	3.45	10	238	0.00
B	.37	.14	.10	.87	3.44	11	237	0.00
C	.37	.14	.09	.88	3.14	12	236	0.00

A. Predictors: (constant), mother alive, housing type, forced sex, hurt for sex, father alive, age group of partners, sex refused, alcohol and sex, pressure to have sex, threatened to have sex

B. Predictors: (constant), mother alive, housing type, forced sex, hurt for sex, father alive, age group of partners, sex refused, alcohol and sex, pressure to have sex, threatened to have sex, depression

C. Predictors: (constant), mother alive, housing type, forced sex, hurt for sex, father alive, age group of partners, sex refused, alcohol and sex, pressure to have sex, threatened to have sex, depression, parent-adolescent communication

Table 11

Coefficients of the regression model

Model No.	Model	Unstandardized Coefficients		Standardized Beta Coefficients	t	Sig.	Collinearity	
		B	Std Error				Tolerance	VIF
1	Constant	.76	1.10		.69	.49		
	Pressure to have sex	.61	.33	.12	1.87	.06	.90	1.11
	Sex refused	-.33	.27	-.07	-1.20	.23	.95	1.05
	Sex hurt	.071	.30	.01	.23	.82	.95	1.05
	Sex threatened	1.06	.62	.11	1.72	.09	.88	1.14
	Forced sex	2.02	.58	.22	3.50	.00	.93	1.08
	Age group of partners	.16	.43	.02	.37	.71	.96	1.05
	Housing	.14	.16	.05	.88	.38	.96	1.04
	Alcohol and sex	-.03	.02	-.11	-1.75	.08	.96	1.02
	Mother alive	.30	.32	.06	.95	.34	.92	1.09
	Father alive	-.28	.21	-.08	-1.32	.19	.93	1.07
2	Constant	.66	1.10		.60	.55		
	Pressure to have sex	.64	.33	.13	1.96	.051	.90	1.11
	Sex refused	-.37	.27	-.08	-1.34	.18	.95	1.06
	Sex hurt	.10	.30	.02	.32	.75	.95	1.05
	Sex threatened	1.36	.64	.14	2.13	.034	.82	1.22
	Forced sex	2.01	.57	.22	3.51	.001	.93	1.08
	Age group of partners	.35	.44	.05	.79	.43	.91	1.12
	Housing	.12	.16	.05	.75	.45	.95	1.05
	Alcohol and sex	-.04	.02	-.11	-1.82	.07	.98	1.02
	Mother alive	.309	.318	.061	.971	.332	.92	1.09
	Father alive	-.29	.21	-.09	-1.40	.162	.93	1.08
	Depression	-.04	.02	-.12	-1.75	.08	.85	1.17
3	Constant	.62	1.18		.52	.60		
	Pressure to have sex	.64	.33	.13	1.96	.05	.90	1.12
	Sex refused	-.37	.23	-.08	-1.34	.18	.94	1.07
	Sex hurt	.10	.30	.02	.31	.76	.95	1.06
	Sex threatened	1.36	.64	.14	2.13	.034	.82	1.22
	Forced sex	2.0	.56	.22	3.50	.00	.93	1.08
	Age group of partners	.35	.44	.05	.80	.43	.90	1.12
	Housing	.13	.16	.05	.76	.45	.95	1.06
	Alcohol and sex	-.04	.02	-.11	-1.81	.07	.98	1.02

	Father alive	.31	.32	.06	.98	.33	.91	1.11
	Mother alive	-.29	.21	-.08	-1.40	.16	.93	1.08
	Depression	-.04	.02	-.11	-1.73	.09	.84	1.19
	PACS	.00	.03	.01	.11	.91	.94	1.06

5.3.6 Sensitivity regression analyses

This section provides the results of the hierarchical regression analysis using the log transformed variables for HIV risk, depression, and parent-adolescent communication. The same variables were entered as stated in section 5.3.5. However, the log-transformed variables were entered for HIV risk, depression, and parent-adolescent communication. As can be seen in Table 13, in Step 1 (Model A), ever being forced to have sex explained 10% ($R^2 = 0.10$; F (10, 233) = 3.53, $p = 0.01$) of the variance of risk for HIV, which is similar to the results obtained in Step 1 of section 5.3.5.

In Step 2, depression was added to the model. As can be seen in tables 12 and 13, the linear combination of ever being forced to have sex and depression predicted 12% of the variance of risk for HIV ($R^2 = 0.12$; F (11, 232) = 2.73, $p = 0.00$).

In Step 3, parent-adolescent communication about sexual and reproductive health was added to the model. In Step 3, the linear combination of ever being forced to have sex and depression remained significant and still predicted 12% of the variance of risk for HIV ($R^2 = 0.12$; F (12, 231) = 3.49, $p = 0.00$). Ever being forced to have sex predicted a positive relationship HIV risk while depression predicted a negative relationship with HIV risk in the hierarchical regression models.

Table 12

Summary of hierarchical multiple regression analysis for variables predicting HIV risk

Model	*R*	R^2	ΔR^2	Std Error	*F*	*df*1	*df*2	*P*
A	.31	.10	.06	.24	2.53	10	253	0.01
B	.34	.12	.12	.23	2.73	11	273	0.00
C	.34	.12	.12	.23	2.49	12	249	0.00

A. Predictors: (constant), mother alive, housing type, forced sex, hurt for sex, father alive, age group of partners, sex refused, alcohol and sex, pressure to have sex, threatened to have sex
B. Predictors: (constant), mother alive, housing type, forced sex, hurt for sex, father alive, age group of partners, sex refused, alcohol and sex, pressure to have sex, threatened to have sex, depression
C. Predictors: (constant), mother alive, housing type, forced sex, hurt for sex, father alive, age group of partners, sex refused, alcohol and sex, pressure to have sex, threatened to have sex, depression, parent-adolescent communication

Table 13

Coefficients of the regression model

Model No.	Model	Unstandardized Coefficients		Standardized Beta Coefficients	t	Sig.	Collinearity	
		B	Std Error				Tolerance	VIF
1	Constant	.18	.14		1.30	.20		
	Pressure to have sex	.07	.04	.11	1.66	.09	.90	1.12
	Sex refused	-.03	.04	-.06	-.88	.38	.95	1.05
	Sex hurt	.01	.04	.01	.13	.89	.95	1.05
	Sex threatened	.11	.08	.09	1.41	.16	.88	1.14
	Forced sex	.20	.07	.18	2.81	.01	.93	1.08
	Age group of partners	.04	.05	.05	.80	.43	.96	1.05
	Housing	.02	.02	.05	.77	.44	.95	1.05
	Alcohol and sex	-.00	.00	-.10	-1.62	.11	.99	1.02
	Mother alive	.04	.04	.06	.86	.39	.92	1.08
	Father alive	-.04	.03	-.08	-1.28	.20	.94	1.07
2	Constant	.21	.14		1.54	.123		
	Pressure to have sex	.07	.04	.115	1.76	.08	.89	1.12
	Sex refused	-.03	.03	-.06	-.91	.37	.95	1.05
	Sex hurt	.01	.04	.02	.31	.76	.95	1.06
	Sex threatened	.14	.08	.12	1.83	.07	.84	1.19
	Forced sex	.20	.07	.18	2.74	.01	.93	1.08
	Age group of partners	.06	.05	.074	1.15	.25	.93	1.08
	Housing	.01	.02	.04	.63	.53	.95	1.05
	Alcohol and sex	-.00	.00	-.10	-1.66	.10	.99	1.02
	Mother alive	.04	.04	.06	.93	.35	.92	1.08
	Father alive	-.04	.03	-.09	-1.34	.18	.93	1.07
	Depression	-.10	.05	-.14	-2.09	.038	.91	1.10
3	Constant	.20	.174		1.18	.24		
	Pressure to have sex	.07	.041	.12	1.76	.08	.89	1.12
	Sex refused	-.03	.035	-.058	-.908	.365	.939	1.07
	Sex hurt	.01	.04	.02	.30	.76	.95	1.06
	Sex threatened	.14	.08	.12	1.83	.07	.84	1.19
	Forced sex	.20	.072	.175	2.73	.01	.93	1.08
	Age group of partners	.06	.054	.074	1.15	.25	.93	1.08
	Housing	.01	.02	.04	.63	.53	.94	1.07
	Alcohol and sex	-.00	.00	-.10	-1.65	.10	.98	1.02

	Father alive	.04	.041	.061	.94	.35	.91	1.10
	Mother alive	-.04	.027	-.086	-1.34	.18	.93	1.07
	Depression	-.10	.05	-.14	-2.06	.04	.90	1.12
	PACS	.01	.09	.01	.08	.93	.95	1.1

5.4 Summary of results

Section 5.3 above provided the results of Phase 1b, that is, the cross-sectional survey. The results showed that the measures of internal consistency of scale variables were uniformly high. The HIV risk scale showed high internal consistency within the study sample. The combination of ever being threatened to have sex and being forced to have sex explained a modest proportion of the variance of risk for HIV in the first regression analyses. While the combination of ever being forced to have sex and depression explained a modest proportion of the variance for HIV in the second regression analyses. Being threatened to have sex, forced sex, and depression are important variables to include in the socio-behavioral risk assessment and counseling components of a tailored psychosocial counseling intervention for adolescents in Soweto. Therefore, these items will be included in the adapted CDC risk reduction counseling intervention as shown in Table 1 and outlined in Chapter Six of this dissertation.

5.5 Discussion of Phase 1b.

The current study is the first to create a composite measure, the HIV risk scale, consisting of multiple items to measure HIV risk among South African adolescents. I selected variables that were informed by Bronfenbrenner's ecological systems theory to capture the multiple levels of influence for HIV risk. The HIV risk scale showed high internal consistency within the study sample. At the time of writing, there were no studies on South African samples that had investigated risk of HIV by means of a composite scale composed of a collection of items. However, many researchers have recommended the use of a composite measure to assess risk for

HIV (Eaton et al., 2003; Pettifor et al., 2013; Puffer et al., 2011). Puffer et al. (2011) used a composite HIV risk measure in sub-Saharan Africa. They assessed associations between high-risk sexual activity and individual- and family-level factors among 325 adolescents aged 10–18 in rural Kenya. Their findings showed that high-risk sexual activity was associated with the following: younger age, being male, lower sex-related self-efficacy, lower monitoring by caregivers, and more conduct problems (p <.05).

The present study used linear regression to predict the variance in HIV risk among adolescents in South Africa. The linear combination of the variables being threatened to have sex and forced sex predicted 14% of the variance of HIV risk in the sample, which is a small-effect size in the social sciences (Cohen, 1998). Therefore, the combination of being threatened to have sex and being forced to have sex explained a modest proportion of the variance of risk for HIV. Being threatened and forced by partners to have sex are located at the interpersonal level of the ecological systems theory. Jewkes (2009) demonstrated an association between risk for HIV and being coerced to engage in sexual activity. Most researchers have investigated associations of HIV infection in South Africa rather than accounting for the variance of HIV risk (Dietrich et al., 2013; Hendriksen et al., 2007; Jama Shai et al., 2010; Pettifor et al., 2005b; Shisana et al., 2014; Shrier et al., 2001; Zembe et al., 2012).

In the second regression model, the linear combination of ever forced to have sex and depression predicted 12% of the variance of HIV risk, which is also a small-effect size (Cohen, 1998). Therefore, the combination of ever forced to have sex and depression explained a modest proportion of the variance of risk for HIV. Depression is an intrapersonal variable that is located within the microsystem of the ecological systems theory. As stated in Chapter Two, researchers have demonstrated mixed results regarding depression and its association as a risk factor for HIV

(Nduna et al., 2010; Peltzer, 2004; Smit et al., 2006). In the present study depression predicted a negative relationship with HIV risk, thereby indicating a protective effect.

A third of the sexually active adolescents in the present study sample reported inconsistent or no condom use. Shisana et al. (2014) compared national data on condom use at four separate points in time, namely 2002, 2005, 2008, and 2012. These authors found a significant and encouraging increase in the reporting of condom use at last sex among 15 to 24-year-olds from 2002 to 2008 (Shisana et al., 2009; Shisana et al., 2014). However, the number of participants who reported condom use at last sex decreased for this age group from 2008 to 2012 (Shisana et al., 2014). The data showed that condom use at last sex increased among young men and women respectively from 57.1% and 46.1% in 2002, to 72.8% and 55.7% in 2005, and to 85.2% and 66.5% in 2008. Reported condom use then decreased among young men and women respectively to 67.5% and 49.8% in 2012. The low rate of condom use by participants in the present study is similar to these national findings, which show a decrease of condom use among adolescents in South Africa (Shisana et al., 2014). The data obtained in the present study suggests that adolescents in Soweto remained at the same risk for HIV infection compared with adolescents elsewhere in the country.

I conducted an analysis of the present dataset to investigate independent predictors of sexual activity and condom use in separate analyses, using logistic regression (Dietrich et al., 2013). The findings showed that female gender, having partners older than 21 years of age, hazardous alcohol use, and permissive attitudes about sex were associated with sexual activity. Inconsistent or no condom use in the last six months was associated with having had a first boyfriend or girlfriend at a younger age and having previous and current boyfriends or girlfriends

older than 21 years. Depression and parent-adolescent communication were not found to be significant predictors in these analyses.

At least half the participants in the sample reported they had engaged in vaginal or anal intercourse. This finding is similar to data from the South African Demographic and Health Survey (2003), in which 42% of women and 63% of men reported sexual intercourse by the age of 18 (NDoH, 2007). Almost half the sexually active adolescent females and males in the present sample stated having being pressured to have sex. An explanation for this may be that young people, more than other age groups, are likely to be more vulnerable to pressure from peers. According to Brook et al. (2006), peer influence is the strongest mediator of high-risk sexual behavior among adolescents. Belonging to a group is important for adolescents and many young people will conform to negative peer pressure, pay attention to their peers' opinions, and engage in high-risk sex in order to belong to a group rather than be excluded from it (Selikow et al., 2009). Selikow et al. (2009) conducted eight FDGs among adolescents aged 13–14 in Cape Town, South Africa, to investigate how negative peer pressure influences risk for HIV among adolescents. The results showed that mainly boys pressured each other to engage in sexual activity, while girls placed pressure on both their female and male peers to be sexually active (Selikow et al., 2009).

Intergenerational sexual activity is a risk factor for HIV among adolescent girls. These age-disparate relationships are associated with early sexual debut (Speizer et al., 2009) and consequent lack of condom use at first sex (Leclerc-Madlala, 2008). The age group of partners for this sample was not a significant predictor of risk for HIV, but the majority of participants in this sample had partners aged 16–21. When compared to those with older partners, it is likely

that having a partner in the same age group may have decreased the risk of HIV infection for this sample.

5.6 Summary of Chapter

This study adds to the literature on adolescent sexuality and risk for HIV. To my knowledge, this is the first study to create a composite measure of HIV risk for use among South African adolescent samples. I selected variables that were informed by ecological systems theory to capture multiple levels of influence for HIV risk to develop the HIV risk scale. The combination of being threatened to have sex and forced to have sex predicted a modest proportion of the variance of risk for HIV. These risk factors are important variables to include in the socio-behavioral risk assessment and counseling components of a tailored psychosocial counseling intervention for adolescents in Soweto. These items will be included in the adapted CDC risk reduction counseling intervention.

Chapter Six

Phase 2: Piloting adapted CDC Risk Reduction Counseling Intervention

6.1 Introduction

The ultimate aim of the present study was to adapt and pilot test a psychosocial intervention, namely, the CDC risk reduction counseling intervention. The aim with the intervention was for it to be developmentally and contextually appropriate among 16 to18-year-old adolescents from Soweto, who could potentially be participants in future HIV biomedical trials. This chapter outlines the adaptation of the CDC risk reduction counseling intervention, describes the methods used to test the intervention, provides the results, and discusses the results of Phase 2 of the present study.

6.2 Adaptation of the CDC Risk Reduction Counseling Intervention

6.2.1 Research team.

A research team consisting of researchers from South Africa and the United States collaborated in a project to adapt the Project Respect CDC risk reduction counseling intervention for use among adolescents in future HIV prevention biomedical clinical trials in South Africa. The researchers from South Africa consisted of a pediatrician who was also an HIV vaccine clinical trial investigator, a social worker who was also the director of the adolescent reproductive health clinic, a social worker who was involved with HCT services at the PHRU, a counselor who worked at the PHRU adolescent reproductive health clinic, a social scientist who conducted socio-behavioral research in HIV vaccine clinical trials, and a research psychology intern who worked on the larger NIMH study. The researcher from the United States was a

clinical psychologist and lead investigator on adolescent HIV research. I was the social scientist on the team that led the adaptation of the Project Respect CDC risk reduction counseling intervention together with the research psychology intern.

6.2.2 The Project Respect model.

The purpose of the Project Respect study was to evaluate the efficacy of two individual face-to face, client-centered and interactive HIV risk reduction counseling interventions that were both aimed at changing behavior and reducing new STI's (Kamb et al., 1998). Project Respect evaluated a brief counseling intervention and an enhanced counseling intervention. For the brief counseling intervention, a trained HIV counselor provided two counseling sessions, each lasting 15 to 20 (Kamb et al., 1998). The same counselor conducted both sessions. The first session included an HIV test and risk reduction counseling. The counselor focused on establishing rapport with the client, assessing personal risk of the client in acquiring or transmitting HIV, developing a realistic perception of personal risk with the client, planning a specific risk reduction plan that related to increasing condom use, and referring the client for any other necessary support. The second session occurred seven to ten days after the first. During this session, the counselor shared the HIV test result, explained the meaning of the test result, and then reinforced and/or strengthened the risk reduction plan introduced in the first session.

The enhanced counseling intervention consisted of four sessions delivered over a four-week period—one 20-minute and three 60-minute counseling sessions (http://www.cdc.gov/hiv/prevention/research/rep/packages/respect.html). The first session was the same as the first session of the brief counseling intervention, which included the HIV test. The enhanced counseling intervention made use of the theory of reasoned action (Ajzen and

Fishbein, 1980) and social cognitive theory (Bandura, 1977), aimed at normalizing condom use by focusing on self-efficacy, attitudes, and perceived norms. Thus, the counselor encouraged condom use self-efficacy in the second session. In the third session, the counselor provided the participant with their HIV test results and focused on a discussion of attitudes towards condoms. For the fourth session, the counselor focused on perception of norms regarding condom use. Each session ended with a goal-setting exercise and encouraged condom use as a long-term risk-reduction strategy.

6.2.3 Adaptation process.

The CDC risk reduction counseling intervention was adapted based on the results of the qualitative and quantitative data of Phase 1 of the present study, further based on the logistic regression analysis of the larger NIMH study (Dietrich et al., 2013) and additional input from the research team. I conducted separate analyses of the present cross-sectional dataset described in Phase 1b to investigate independent predictors of sexual activity and condom use individually, using logistic regression (Dietrich et al., 2013). The full manuscript and results are presented in Appendix R of this dissertation. I shall describe the two regression models below.

6.2.3.1 Logistic regression for sexual activity.

In univariate regression, individual level factors (that is, being male, older in age, hazardous alcohol use, illegal drug use, and having low self-esteem), dyad level factors (that is, having a partner older than 21 years, pressure to engage in sex, including ever being hit and physically hurt by partner), and community/peer level factors (that is, having permissive attitudes about sex, having experienced an act of violence) were associated with sexual activity. In the

multivariate logistic regression, being male (*OR*: 2.6, CI: 1.4, 4.8), hazardous alcohol use (*OR*: 2.4, CI: 1.1, 5.2), having a partner older than 21 years (*OR*: 4.5, CI: 1.5, 13.8), and having permissive attitudes toward sex (*OR*: 1.6, CI: 1.3, 2.1) were associated with sexual activity (that is, vaginal and/or anal sex).

Predictors of sexual activity in the multivariate model by gender showed that for females, sexual activity was significantly associated with increasing age (*OR*: 2.7, CI: 1.4–5.5), partners older than 21 years (*OR*: 3.3, CI: 1.4–7.6), and permissive attitudes about sex (*OR*: 1.6, CI: 1.2–2.1). Sexual activity for males was significantly associated with increasing age (*OR*: 3.4, CI: 1.1–10.0), hazardous alcohol use (*OR*: 4.0, CI: 1.1–14.7), and permissive attitudes about sex (*OR*: 1.7, CI: 1.2–2.5).

6.2.3.2 Logistic regression for condom use.

The following variables were significant (p <0.05) for the univariate regression: individual level factors (that is, increasing age at the time of having a first partner, decreasing depressive symptoms, and low self-esteem), dyad level factors (that is, having partners older than 21 years), and community level factors (that is, experiences of violence). These variables were then entered in the multivariate regression model. In the multivariate regression model, increasing age at time of having a first boyfriend or girlfriend (*OR*: 1.2, CI: 1.1–1.4) was a significant predictor of condom use, while those with partners older than 21 years were less likely to use condoms (*OR*: 0.29, CI: 0.13–0.68).

Predictors of condom use in the multivariate model by gender showed that for females, condom use was significantly associated with the age of first partner (*OR*: 1.4, CI: 1.01–1.9), while those who had partners older than 21 years (*OR*: 0.3, CI: 0.1–0.9), were less likely to use

condoms. There were no significant predictors of condom use for males in the multivariate model. The findings showed female gender, having partners older than 21 years of age, hazardous alcohol use, and permissive attitudes about sex to be associated with higher levels of reported sexual activity. Inconsistent or no condom use was associated with having had a first boyfriend or girlfriend at a younger age and having boyfriends or girlfriends older than 21 years. The findings from Phase 1 (qualitative and quantitative data) and the results of the logistic regression method were integrated within ecological systems theory and the integrative model of behavioral prediction as shown in Figure 3.

6.2.4 Adaptations made to the Project Respect CDC risk reduction counseling intervention.

This section will outline the changes made to the CDC risk reduction counseling intervention of Project Respect, aimed at creating an adapted version for future use among adolescent participants of biomedical HIV prevention trials. Changes are also outlined in Table 14 (following). The second column in the table lists the original Project Respect version of the CDC risk reduction counseling intervention, with the third column listing the changes made to develop the adapted version. As stated in section 6.2.3, above, adaptations to the CDC risk reduction counseling intervention were based on the results of the qualitative and quantitative data of Phase 1 of the present study, from logistic regression analysis of the larger NIMH study (Dietrich et al., 2013), and from additional input from the research team.

6.2.4.1 Counseling model selected.

The Project Respect study showed that both the brief and enhanced counseling models were effective in facilitating behavior change. The research team for Phase 2 of the present study selected to adapt the brief counseling model as this two-session model was deemed more appropriate within an HIV vaccine trial visit, to be used in future biomedical trials involving adolescent participants. This decision was based on the research team's experience in conducting clinical trials among both adults and adolescents.

6.2.4.2 Theoretical frameworks.

As stated in section Chapter Two, the Project Respect brief counseling model was informed by aspects of the integrative model of health behavior prediction. The adapted version included the integrative model of health behavior prediction and ecological systems theory. The inclusion of ecological systems theory was based on the quantitative and qualitative results of Phase 1. The findings of Phase 1 provided evidence for a multi-level approach in assessing and addressing risk for HIV among adolescents.

6.2.4.3 Condom use messaging.

In Project Respect, enhanced counseling was informed by the integrative model of health behavior prediction, which incorporated aspects of the theory of reasoned action (Ajzen and Fishbein, 1980), the health belief model (Noar, 2005), and social cognitive theory (Bandura, 1977). Activities for enhanced counseling focused on improving self-efficacy to use condoms, encouraging a positive attitude toward condom use, and setting the expectation of condom use as normalized amongst partners and peers. However, brief counseling was informed by aspects of

the integrative model of health behavior prediction, specifically, the health belief model and social cognitive theory. For brief counseling, counselors focused on a specific health belief (condom use) and increasing risk perception (Rhodes et al., 2007).

For the adapted version, I incorporated the activities of the enhanced and brief counseling models so that condom use messaging and risk perception remained the key focus of counseling. However, condom use messaging was facilitated through improving self-efficacy to use condoms (that is, by demonstrating how to use a condom correctly), encouraging adolescents to use condoms, and using messaging that normalized condom use among peers. This adaptation was informed by the qualitative and quantitative results of Phase 1 of the present study.

6.2.4.4 Risk assessment.

The brief counseling model of Project Respect incorporated a short risk assessment that was included in the first session. For the adapted version, I developed an extensive socio-behavioral risk assessment that was informed by the qualitative and quantitative findings of Phase 1 of the current study and input from the research team. In the adapted counseling model, the socio-behavioral risk assessment was delivered via an online web-based application (www.limesurvey.org). The online socio-behavioral risk assessment was administered prior to the counseling session of brief counseling. A data manager then viewed the results in the online database and provided the results of this assessment to the counselor prior to the counseling session. The counselor used the results of the socio-behavioral risk assessment to inform the counseling session. In this way, the counselor could discuss the participant's perception of risk by including risk factors of the socio-behavioral risk assessment.

Although condom use was emphasized, the research team acknowledged that condom use could be difficult for young people. Thus, I also adapted the counseling to include a step-wise approach to increase condom use among adolescents, with options for those who may not be able to use condoms. For instance, an adolescent girl with an older partner may not be able to negotiate condom use. In this situation, she could be encouraged to explore realistic options that would have achievable outcomes. These options may include regular HIV testing, testing for HIV with her partner, and starting to have discussions about condom use with her partner. The counselor would work with the adolescent girl to negotiate realistic steps that could be taken to help the participant reduce her risk profile.

6.2.4.5 Components of the risk assessment.

I developed the socio-behavioral risk assessment and the counseling session by incorporating into it multiple levels of influence (see Table 15), that is, the intrapersonal level factors, interpersonal relationships and circumstances, and community level influences. Thus, the participant's risk was tailored to take into account the many systems that influenced risk for HIV.

6.2.4.6 Timing of session.

The typical study visit for a participant in an HIV vaccine trial included an informed consent or assent, parent consent from those under 18 years, an extensive behavioral risk assessment, HIV testing, STI testing, risk reduction counseling and additional protocol specific tests such as mucosal swab collection and blood draws. The visit usually ranges from 3–5 hours, depending on the aforementioned procedures that have to be performed. The CDC risk reduction counseling intervention was adapted for inclusion in the context of this typical visit. Therefore,

the fifth adaptation was that the socio-behavioral risk assessment, HIV test, and counseling session would take place on the same day so that there was one study visit. For the purposes of this study, I did not include an HIV test in the procedures because the aim was to pilot test the adapted counseling intervention. The length of the counseling session was dependent on the level of risk behavior participants reported in the socio-behavioral risk assessment. As stated above and shown in Table 15, the counseling took into account multiple levels of influence on individual risk behavior. Risk reduction took into account the differential risks for adolescents, including those for adolescents not necessarily sexually active but needing to be prepared for sexual debut or delaying sexual debut (Appendix S). Risk reduction counseling engaged participants by enhancing participants risk perception through discussing personal risk situations and cues related to their sexual risks. Condom use was normalized in the session by informing participants that condom use among adolescents their own age had increased. The counselor demonstrated the correct use of male and female condoms. This demonstration was not in the original Project Respect intervention and was added to the adapted intervention because of the data on condom use in Chapter Four. The counselors discussed triggers for high-risk situations, including substance use, settings, and sexual partner characteristics, all of which served as risk-related factors in the participant's past. Participants were asked to identify ways to identify and manage triggers that might contribute to their personal risk. The counselors provided the participant with strategies to reduce their risk.

Appendix S provides a detailed training protocol of the adapted CDC risk reduction counseling session. The risk reduction counseling session specifically consisted of the following sections: (1) introduction/establish rapport with participant, (2) sharing information about HIV, (3) enhancing participant's self-perception of risk, (4) review previous risk reduction

experiences, (5) negotiation of risk reduction plan, (6) condom skills demonstration and practice, and (7) identify sources of support and provide referrals. At the end of the counseling session both the counselor and the adolescent were asked fidelity questions about the counseling session (Appendix D). The responses to these fidelity questions are outside of the scope of this dissertation therefore the results are not presented.

Table 14, on the next page, presents a description of the overall adaptations made to the CDC risk reducing counseling intervention that this section has been discussing.

Table 14

Description of the adapted CDC risk reduction counseling intervention

Aspect changed	**Project Respect CDC RRC**	**Adapted CDC RRC**
1. Project Respect counseling model selected	Brief counseling and enhanced counseling	Based on brief counseling model
2. Theoretical frameworks	Integrative model of health behavior prediction	Integrative model of health behavior prediction, and ecological systems theory
3. Condom use messaging	Brief counseling: Focused on a specific health belief (condom use) Increasing risk perception	Integrate condom use messaging of the brief and enhanced models to provide a more comprehensive approach to condom use: • Focused on a specific health belief (condom use) • Increasing risk perception • Improving self-efficacy to use condoms • Demonstrate correct use of male and female condoms • Encouraging a positive attitude toward condom use • Normalize condom use amongst partners and peers
4. Risk assessment	Short risk assessment incorporated within first counseling session.	Extensive online socio-behavioral risk assessment administered prior to counseling session.
5. Components of risk assessment	Specific focus on individual sexual behavior	Assess multiple risks: Individual Interpersonal risks Peers School Community
6. Timing of sessions	Brief counseling used two sessions, 7–10 days apart	Provide both sessions on the same day

Note: RRC = Risk reduction counseling intervention

Table 15, following, shows the integration of the socio-behavioral risk assessment and the counseling session using ecological systems theory

Table 15

Application of ecological systems theory

Theoretical framework	**Variables of Socio-behavioral risk assessment**	**Aspect addressed in Adapted CDC risk reduction counseling intervention**
Individual level (Microsystem)	Demographic characteristics (age, gender, housing, socio-economic status)	Referral for social grants and food parcels may be necessary
	Sexual behavior (sexual debut)	Discussion around delaying sexual debut, using condoms at sexual debut
	Substance use	Referral for additional support
	Mental health, including depression Experience of stressful events	Discuss healthy ways to cope with stress (especially important for females)
	Experience of forced and unwanted sexual experiences	Address ways to avoid potentially risky situations and what to do is situtations of forced sex (especially important for females)
Partners (Microsystem)	Dating during adolescence	Initiation of sex, condom use
	Age group of partner	Intergenerational sexual relationships particularly important for females.
	Number of partners	Condom use, regular HIV testing
	Condom use amongst adolescents	Condom use demonstration Demonstrate correct condom
	Adolescent girls dating older men	Address condom negotiation discussion about HIV and contraception with partner and regular HIV testing
	Partner pressure to have sex	Address ways to cope with pressure from partners to engage in sex, especially among females.
Family (Microsystem)	Parents alive Parent-adolescent communication Parent-guardian support	Parents and caregiver relationships are criticial in providing potential sources of support especially for females who value emotional support. Discuss trusted adults, such, as, teachers, aunts, counselors if parents can not be approached.
Interactions between microsystem relationships (Mesosystem)	Parents and school Parents and romantic/sexual partners Peers and romantic/sexual partners (group sex events) School and romantic partners	Show how different systems can influence risk. For instance stress at school and partner relationships. Parent rules and attitudes towards dating and sex
Community/peers (Exosystem)	Attitudes about sex and condoms	Normalize condom use amongst partners and peers
	Views about homosexuality	Provide gender-neutral clinic environment so that LGB adolescents. Provide referral and support for LGB adolescents to cope

		with potential stigma and discrimination.
Institution (Macrosystem)	Adaptation of the CDC risk reduction counseling intervention	

6.3 Methodology of Phase 2

I used a mixed method research design to pilot test the modified CDC counseling intervention for acceptability and feasibility among 16–18-year-olds living in Soweto. First, participants completed an online socio-behavioral risk assessment, followed by the adapted CDC risk reduction counseling intervention. Last, participants gave feedback about these study procedures through in-depth interviews.

6.3.1 Site description.

Phase 2 took place at the ZAZI clinic at the PHRU. ZAZI was the PHRU's HCT clinic based on the ground floor of its premises. ZAZI has provided free HCT services for individuals testing for HIV since 2008. To date, more than 24 000 individuals have tested for HIV at ZAZI (unpublished data).

6.3.2 Sample.

The study team recruited 21 adolescents aged 16 to18 through a previous study involving adolescents conducted at the Kganya Motsha Adolescent Center (KMAC) as well as through community recruitment.

6.3.3 Procedures.

Members of PHRU study staff contacted 23 potential participants telephonically to set up a convenient time. Permission was first obtained from the principal investigators to contact participants who had participated in the SASHA study (Katz et al., 2013). Once approval was granted, members of the PHRU study staff obtained the list of contact details from the KMAC study staff members. The members of the PHRU study staff then contacted the potential participants telephonically to inform them about the present study and to enquire if they were interested in participating. PHRU study staff members then set up appointments with those who agreed to participate. Members of the PHRU study staff also approached potential participants through community recruitment in the vicinity of the taxi rank opposite the Chris Hani Baragwanath Academic Hospital. They informed potential participants about the study, took their contact details, and asked permission to contact them via telephone. PHRU study staff members then contacted these potential participants telephonically to set up appointments with them.

Participants were asked to take part in a two-hour study visit that consisted of a socio-behavioral risk assessment, a counseling session, and an in-depth interview. The first participant complained that the session was too long, so subsequent visits were divided into two sessions. Participants first signed a consent form and then completed the socio-behavioral risk assessment. Members of PHRU study staff obtained adolescent assent together with parental consent for 16 to 17-year-old participants. A trained interviewer administered the 60-minute socio-behavioral risk assessment through an online web-based survey platform. In the second visit, participants received the adapted risk reduction counseling intervention. The counselor used the results of the socio-behavioral risk assessment to inform the counseling session. Two trained female

counselors conducted the counseling sessions. Last, participants took part in an interview to give feedback about the adapted CDC risk reduction counseling intervention. Participants received ZAR50 for their time and participation. The study visits took place in private counseling rooms at the PHRU.

6.3.4 Counselor characteristics and training.

Four members of the PHRU study staff implemented the study, including two black African female counsellors, one black African female interviewer, and one female African research administrator. The research administrator recruited participants for the study. The interviewer administered the socio-behavioral risk assessment and the two counselors conducted the adapted CDC risk reduction counseling sessions. The counselors were trained HIV counsellors, with extensive experience in HIV prevention clinical trials. Both counselors had received lay counseling training, had up to date good clinical practice certificates (GCP) (DoH, 2006) and were fluent in English and isiZulu. At the time of the study, one counselor was completing an undergraduate degree in social work. The interviewer was experienced in HIV prevention research, in particular, administering interviews with adolescents

The aforementioned PHRU study staff members received three days of training from me prior to implementing the study. I trained them using both the study protocol and the adapted CDC risk reduction counseling intervention (Appendices D and S). All staff members received two days of training on the use of the online socio-behavioral risk assessment and were shown how results would be presented to them. The counselors worked with the data manager to ensure that they would receive the results on time and prior to the counseling sessions. Counselors received a counseling script to guide the counseling session (Appendix S) and were trained on

the content of the adapted counseling session. Participants were given the opportunity to practice the scripts with each other.

6.3.5 Socio-behavioral risk assessment.

As shown in Table 15, participants received an extensive risk assessment prior to the counseling session. The results of this socio-behavioral risk assessment are not provided in detail. A structured face-to-face risk assessment interview (see Appendix C) was completed by an interviewer. The interviewer entered the responses into an online web-based application, Lime Survey (www.limesurvey.org). Relevant items from the risk assessment questionnaire are described below in Sections 6.3.5.1 – 6.3.5.4. The data manager compiled the responses of the risk assessment into an excel spreadsheet of the results and provided this to the counselors (prior to the counseling session) via an email so that the counselors could use the results of the assessment to inform the counseling session.

I led the development of the socio-behavioral risk assessment with guidance from the research team. The research team consisted of a pediatrician, another social scientist, a clinical psychologist, and a data manager. We developed the questionnaire over a series of meetings. Some of the items were based on previous research while the research team developed other items. Thereafter, the data manager created the online version of the risk assessment using the Lime Survey. Table 15 shows how the variables assessed in the socio-behavioral risk assessment map onto to ecological systems theory.

6.3.5.1 Demographic information.

As shown in Table 15 variables in this section were important to assess age (actual age

entered), gender (male, female), schooling history (present grade in school), household information, and socio-economic status (Dietrich et al., 2013).

6.3.5.2 Behavior.

This section assessed relationship status, number and age group of partners, ever had sex (that is, vaginal, anal and oral sex), sexual behavior history, including, partner type, same sex behavior, partner HIV status and testing history, transactional sex, condom use, and history of STIs.

6.3.5.3 Substance use.

This section assessed alcohol use, drug use, and sexual activity under the influence of drugs or alcohol in the past month.

6.3.5.4 Condom use self-efficacy.

A four-item scale assessed participants' intentions to use condoms. For example, use of such questions as: Would you be able to use a condom every time you have sex? These items were taken from a nationally representative sample of sexually experienced 15 to 24-year-old women in South Africa (see Hendriksen et al., 2007). Internal consistency for this scale was moderate with a Cronbach alpha coefficient of 0.60.

The results of the socio-behavioral risk assessment were used to inform the counseling session as shown in Table 15. The counseling was individualized based on the participant's gender and risk profile as shown in Appendix S. Following the counseling session the participant and the counselor completed fidelity questions on the counseling session.

Participants then completed and in-depth interview to provide feedback on the study visits and the adapted counseling session.

6.3.6 Interviews.

Participants (n = 17) took part in a 20-minute interview after the counseling session. The interviewer used a semi-structured interview guide (see Appendix D) to explore the feasibility of the intervention and to identify intervention areas needing further tailoring. The purpose of these interviews was to: (1) further explore key themes and issues that emerged in the intervention related to risk assessment and risk reduction; (2) identify developmental concerns and contextual issues, and (3) elicit feedback on the intervention content, process, and location to explore feasibility of intervention development. Interviews were digitally recorded, transcribed verbatim, and translated into English for data analysis.

6.4 Data Analysis

6.4.1 Quantitative data analysis.

Responses to the survey were assigned numerical values and analyzed using the program SPSS v. 20 (IBM Corp., Released 2011). I analyzed demographic variables using frequency and descriptive statistics. Cronbach's alpha internal reliability coefficient was computed for the condom self-efficacy scale. For this study, a value >0.7 was regarded as acceptable (Field, 2009).

6.4.2 Qualitative data analysis.

Interviews were recorded with digital audio-recorders, transcribed verbatim, and translated these into English. I (first analyst) worked with a Public Health Master's graduate (second analyst) to analyze the interviews. We used a similar thematic data analysis approach

(Punch, 2009) as outlined in chapter 4, section 4.2.5 of this dissertation. We analysed data manually, that is, without the use of a data analysis software programme.

First, we read and re-read transcripts to familiarize ourselves with the data in order to start identifying preliminary codes (Dey, 1993). According to Dey (1993), this first step was important to gain an in-depth overall understanding of the data. The second step involved reducing the data by coding the transcripts. The research aims guided the coding and additionally allowed for the emergence of themes initially not considered by the research team. For initial coding, we used an open coding method in which a line-by-line analysis assigned text to codes (Strauss, and Corbin, 1998). After coding the first two transcripts, I worked with the second analyst, the public health master's graduate, to develop a codebook to group codes into sub-themes and then into broader themes. We specifically identified themes relating to acceptability and feasibility of the CDC risk reduction counseling intervention.

6.4.3 Ethics and informed consent procedures for phases 1 and 2 of the study.

The institutional review boards at the University of the Witwatersrand, the University of Johannesburg, and Stellenbosch University, respectively located in Gauteng and Stellenbosch, South Africa, as well as Duke University, located in Durham in the United States approved the study procedures. As shown in the informed consent forms (see appendices N-P), members of PHRU study staff informed all potential participants about the study aims and procedures prior to their enrolment in the study. Participants signed written consent or assent to participate. Participants younger than 18 years completed written assent and provided signed written consent from a parent or legal guardian. Members of PHRU study staff ensured that parents had given written consent by contacting parents telephonically or by conducting home visits.

The ethical principles of confidentiality and anonymity were strictly adhered to. Participant names were not linked to any of the questionnaires or audio-recordings; instead, study numbers were assigned to each participant. Consent forms were kept in a secure cabinet and kept locked at all times separate from the questionnaires. Questionnaires were filed and kept in securely locked cupboards. Only investigators and PHRU study staff members had access to the data. Electronic data were stored in password-protected files.

6.5 Results of Phase 2

In this section, I shall provide the results of Phase 2, in which I pilot tested the adapted CDC risk reduction counseling intervention for feasibility and acceptability among adolescents from Soweto.

6.5.1 Response rate.

Participants were required to attend two study visits. A total of 21 participants attended the first visit, which included completing consent forms and the socio-behavioral risk assessment. A total of 17 participants attended the second visit, which included the adapted CDC risk reduction counseling intervention session as well as an in-depth interview to provide feedback about both visits, including the counseling session.

6.5.2 Demographic characteristics.

Participants were aged 16–18, with 52% of the sample (n = 11) being female. Most of the

participants (91%, *n* = 19) were in Grade 8 to 12 at school. As a proxy for socio-economic status, most participants (86%; *n* = 18) lived in brick structures with electricity in their homes (95%; *n* = 20).

6.5.3 Sexual and behavioral risk

The majority of participants (81%, *n* = 17) reported having a boyfriend or girlfriend at the time, with 38% (*n* = 8) reporting having more than one boyfriend or girlfriend. More than half the participants (62%; *n* = 13) reported ever having had vaginal, anal, or oral sex. Almost half (46%) the participants who reported sexual activity (6/13) also reported using a condom at first sex, with 77% (10/13) reporting using a condom at last sex. Two of the female participants reported ever having been pregnant.

6.5.4 Results from in-depth interviews.

I identified three main themes from the in-depth interview transcripts. The themes included: (1) benefits of HIV testing services, (2) reasons for seeking counseling and HIV testing services, and (3) participants' evaluation of the study visits, including the counseling session. These three main themes are discussed in sections 6.5.4.1 to 6.5.4.3, following.

The following sub-themes were linked with the participants' evaluation of the study visits, including the counseling session: (a) adolescents opinions about the received counseling session, (b) length of the counseling session, (c) environment and atmosphere, and (d) interaction with the counselor. These four sub-themes are discussed under (a) to (e) in section 6.5.4.3, following.

6.5.4.1 Benefits of HIV testing services.

Many participants agreed that HIV testing was important when adolescents required advice and information about risks for HIV. Most participants reported the benefits of HIV testing services. For example, a 17-year male participant stated: “I think it is an important thing to do. Like, if you have a sexual partner and you don’t use protection”. Another 17-year old male participant stated:

> It’s when you have sex with a person you don’t know, like, what happens in parties. Like, having a one night stand, then after, you … think of testing. Because you will never know that the person you have a one night stand with is used of [*sic*] sleeping around.

For these participants HIV testing could assist in knowing one’s HIV status after risky sexual encounters. A 16-year-old female adolescent reported another benefit of testing for HIV. She stated: “It [HIV testing] helps people like me where there are things that I didn’t know of … like advice about condom use ... testing and stick [*sic*] to one sexual partner”.

Two other participants indicated that more public advertisements about HIV testing and counseling was needed to raise greater awareness of the availability of such services. For example, one 18-year old male participant reported: “It [HIV testing and counseling] is a good thing that people should [be] made aware of, like doing an HIV test and knowing … our HIV status and how to protect ourselves”. This theme demonstrated the benefits of testing for HIV, which included reducing risk of acquiring HIV through safer sexual practices and knowing one’s HIV status after risky sexual encounters.

6.5.4.2 Reasons for seeking counseling and HIV testing services.

Participants stated three main reasons for adolescents accessing counseling services. They spoke about the importance of general counseling services not necessarily linked with HIV testing, counseling to deal with traumatic events, and counseling for HIV risk reduction. For

example, an 18 year old female stated: “I think it [counseling] is a good way of trying to help people who are facing problems, and I think that is what a lot of people are lacking at the moment”. She further stated: “They don’t get help when they are facing such situations like being infected with HIV or being raped. So I think counseling plays a major role”.

Several other participants stated that adolescents might seek counseling after experiencing a traumatic event. For example, a 17-year-old female participant stated: “Your partner … is forcing you to have sex with him and you feel it’s not easy to handle. You better go and share it with someone”. For this participant, counseling services could provide much needed emotional support. An 18 year old female participant agreed: “For those that were raped and stuff, but then counseling is really needed ... maybe not only rape but also those that have been abused. Maybe witness their parent being killed or parents fighting”. For these participants counseling was important for adolescents who had experienced traumatic events.

Many participants spoke about accessing counseling services for sexual and behavioral risk reduction. For example, an 18-year-old female participant reported: “Counseling helps a lot, because us as teenagers, we find it difficult … to talk about sex with our parents”. Adolescents reported risk factors that necessitated counseling. A 17-year old female participant stated: “*Ja* [Yes], like those who are addicted to drugs and alcohol, they can also come if they need help and [are] willing to stop”. In this context, counseling could assist those with substance addiction problems. The same participant further stated: “Like pregnancy and maybe you [had] made an abortion and can’t get over it ... you can go for counseling to relieve stress”.

Several male and female participants reported that HIV counseling and testing could assist adolescents in learning their HIV status. For instance, a 17-year-old male participant

stated: “Maybe they want to know each other’s status … so that they will be able to trust each other”. A 17-year old female participant stated:

> Others, they go because they want to know their [HIV] status and those that have sex without using protection, they want to check if they are not pregnant, and also if they don’t use injection and tablets to prevent pregnancy.

For this participant, HIV testing was integral for adolescents who engaged in high-risk sexual activity. Another 18 year female participant stated: “It can be HIV. Maybe that person is infected or someone close to that person .... I think counseling is important because it gives them a platform to deal with their problems”.

In this theme participants reported reasons for adolescents potentially accessing counseling services, in general, as well as HIV testing services, in particular. Participants stated the importance of counseling for adolescents who had experienced traumatic events, especially sexual coercion and rape. Conversely, participants perceived HIV testing to be a potential means of adolescents monitoring their individual HIV status following risky sexual encounters.

6.5.4.3 Participants’ evaluation of the study visits and counseling session.

6.5.4.3. 1 Participants’ overall impressions of the counseling session.

The majority of participants provided positive reports about the study visits. A 17-year-old male participant stated: “It was nice and I was enjoying it ... It is because they advise me about things that I should be aware of like knowing my status as well as how to protect myself”. This participant reported satisfaction with the counseling session because it included a risk reduction component.

A few participants reported having felt scared and nervous at the beginning of the counseling session. For example, an 18-year old female participant stated: “It was scary at first because I had to open up about some of the things ...*Yoho*, it was great actually. Like, it made me to think broad about life, so *ja* [yes] it felt good”.

Participants stated that they preferred discussing intimate topics with a stranger. The following exchange involved an 18-year-old male participant.

Participant: “I would say it was easy to confide yourself to a stranger, unlike talking to someone you know”.

Interviewer: “What makes it difficult with somebody you know?”

Participant: “It is not that much difficult, but the thing is you are not sure about the conversation that you are discussing—if it will be between the two of you”.

Last, an 18-year-old female participant disagreed with the reimbursement portion of the study visit by stating that participants should receive reimbursement for participation in the study. In this sub-theme, most participants reported positive experiences in attending the study visits, with participants offering different perceptions about disclosing personal information in a personal counseling session.

6.5.4.3.2 Length of the study visits.

All, except two, participants perceived the length of the counseling session to be favorable. An 18-year-old male participant stated: “It [the study visit] was too long and they were asking a lot of questions … I came here early and the questions were too long”. After receiving feedback that this participant found the session too long, I split the study visit so that participants could attend two visits. The first visit was to complete consent and the socio-

behavioral risk assessment and the second to receive the counseling session and participate in an in-depth interview.

Following the aforementioned change in the study visit, participants mostly reported the time frame of the visits to be acceptable. For example, an 18 year old female participant stated: "It was okay, it wasn't too short, because if it was too short I don't think I would get this much information". For other participants, the counseling length was favorable as they received valuable information. A 17-year-old male participant stated: "To me it was okay because it also take[s] us out of things that is happening in the community". However, an 18-year-old female participant provided an alternative report of the timing of the study visits.

Interviewer: "So if we had the same session for another adolescent, we should keep it the same length?"

Participant: "*Ja* [yes], but it will depend on a person that you have a session with".

For this participant, the time of the study visit should also be informed by the individual needs of the participant.

This sub-theme showed that most participants reported the time of the overall study visits as favorable.

6.5.4.3.3 Environment and atmosphere of the counseling session.

All participants, except one, reported satisfaction with the counseling environment. One 18-year-old male participant commented on the size of the counseling room. He stated: "It wasn't too big … it is supposed to be like that—small, not a big one". Several participants reported the importance of privacy during counseling. A 16-year-old female participant stated: "It was a good place because we had privacy. Nobody heard what I said".

Some participants reported the counseling atmosphere to be comfortable. However, a 17-year-old male participant gave an alternative perception of the counseling environment. He stated: “It wasn’t okay… It wasn’t closed right, people from the other side could hear our conversation”. For this participant, the counseling environment was not private.

Participants also spoke about the counseling environment in terms of the information learned in the counseling session. For example, a 17 year old male participant stated: “I can say it is the right environment because there is an information that is written on paper about HIV and how to take care of myself, and the advice that I got keeps me focused”. For this participant, the information gained during the counseling session contributed to his overall experience of the study visit environment.

6.5.4.3.4 Interaction with the counselor.

Most participants reported a positive interaction with the counselors, describing the counselors as friendly, non-judgmental, and easy to talk to. Participants’ were able to openly discuss intimate topics with the counselors. For example, a 17-year old male participant stated: “She made me to feel comfortable in a way that I talked about things that I have never spoke [*sic*] to anybody about. I was open about things”. An 18-year-old participant stated: “We were interacting okay, as if we know each other”.

Participants also spoke about how the counselor managed the counseling process. For example, an 18 year female stated: “It was good, though I needed clarification with some questions that she asked me; but then, the communication was good. I could understand what she was saying and she could understand what I was saying”. However, an 18-year-old female participant admitted that she found it difficult to talk openly about sexual issues with the

counselor. “When she asked if I ever had sex before, it wasn’t easy for me to answer because I am not used of talking openly about things like that”. An 18-year-old male participant stated that he would have preferred a male counselor, regardless of the male counselor’s age.

Although participants reported many positive interactions with the counselors, they also raised points for consideration in delivering counseling to adolescents. These points include discomfort in openly discussing sex and receiving counseling from a counselor who was of a different gender to the participant.

6.5.4.3.5 Information learned during counseling.

The majority of the participants stated they had gained knowledge during the counseling session. An 18-year-old male participant stated:

> *Ja* [yes], there were things that I wasn’t aware of before ... Is the importance of knowing my status ... Is that I must always use protection whether I am under the influence of alcohol or not, because I will never know the HIV status of the person I am having sex with.

An 18-year old female stated that the counseling session provided clarification about topics she knew about. She stated:

> The questions were not things that I didn’t know, but it was things that needed to be clarified and confirmed. I think this was (sic) made me to enjoy it because it wasn’t new topics. It was some things that I had an idea about. I just needed confirmation on it.

A 16-year-old female participant summarized what she had learned during the counseling session. She stated:

> She [the counselor] told me many things like TB information, HIV, and how to prevent pregnancy, like I have to take tablets every morning and also the information about condom use, because if I don't use condoms I will get STI's and HIV and AIDS.

The information and advice received during the counseling session gave some participants more confidence about strategies to reduce risk behaviors. For example a 17-year-old male stated: "It was a good experience because it helps you to plan your future, because if I end up being positive it will affect my future plans".

Two participants reported that the counseling session made them aware of the importance of testing for HIV. One 17-year-old male participant stated:

> I also want to do an HIV test because I haven't done it before. I want to know my status. It is something that I have learned from the session. I never thought of doing it before but after this session, I have made [up] my mind that I should go with my partner and get tested.

Many participants reported learning about strategies to reduce risk for HIV. An 18-year old male participant found it important to be advised not to have multiple sexual partners. He stated:

> Because I wouldn't know if they have other sexual partners …*Ja* [Yes], because I wouldn't know [with] whom does she has sex with besides me. So if I have one partner then I stick to her till death do us apart.

An 18-years old female participant spoke about sexual risk when under the influence of substances. She stated: "I think it's putting me at risk, maybe having sex under the influence of drugs or having unprotected sex. That's putting me at risk in terms of HIV and AIDS". This sub-theme showed that all the participants gained information during the counseling session.

Participants reported learning about the advantage of testing for HIV, learning strategies to reduce risk for HIV, and learning about STIs and TB.

6.5.5 Summary of results.

In summary, I outlined the process followed in adapting the Project Respect CDC risk reduction counseling intervention. Thereafter, I described the methodology and results of assessing acceptability and feasibility of the adapted CDC risk reduction counseling intervention among adolescents from Soweto. The adapted intervention was found to be acceptable and feasible for use among adolescents likely to be participants in future HIV prevention biomedical research. Participants reported favorable outcomes for the piloting phase of the present study. In the next chapter, I shall provide a discussion of the findings of Phase 2 of the present study.

6.6 Discussion of Phase 2

Phase 2 of this study provides evidence of acceptability and feasibility of the adapted CDC risk reduction counseling intervention among adolescents in Soweto. The results showed that the intervention was well received by participants. The majority of participants reported a positive experience of the counseling environment as well as interaction with the counselors.

All participants expressed awareness of the benefits of HCT. Many participants stated that HCT could be used to monitor one's HIV status following risky sexual encounters. Some participants recognized HCT as a potential entry point for counseling services. In particular, counseling services were considered important to support adolescents who had experienced stressful life events, such as rape and family problems. HCT has been effective in reducing the risk for HIV infection among adults (Denison, Reilly, Schmid, kennedy, and Sweat, 2008; Doherty et al.,

2013, Kalichman et al., 2007; Kalichman, Demetria, Eaton, Jooste, and Leickness, 2011). Thus, HIV risk-reduction counseling is an important strategy that can be used to reduce the risk of HIV infection among adolescents.

The data of the present study contributes to the literature about brief HIV prevention counseling interventions for young people in South Africa, where there is currently little research on adapted risk-reduction counseling models (Kalichman et al., 2007; Kekana, Banyini, Jooste, Simbayi, and Peltzer, 2011; Peltzer, Simbayi, Banyini, and Kekana, 2012). Research has shown multiple sessions and brief STI counseling to be effective in increasing condom use and reducing new STIs, including HIV, among adult STI clinic attendees in the United States (Carey et al., 2011). Jemmott III et al. (2010a) evaluated the efficacy of a theory-based (social cognitive theory, theory of reasoned action and theory of planned behavior) among adolescents in the United States. The intervention consisted of an eight-hour abstinence-only intervention to prevent sexual involvement among young adolescents, an eight-hour safer-sex only intervention, and a 12-hour and eight-hour comprehensive intervention that combined the abstinence, safer-sex, and HIV-risk reduction interventions. A total of 662 African American adolescents, aged 10 to 15, participated. The findings showed that the abstinence-only intervention reduced sexual initiation, with fewer participants in this arm reporting sexual activity in the previous three months. Participants in the 12-hour comprehensive intervention reported having fewer partners than those in the control group, which focused on risk behaviors associated with non-communicable diseases.

The current study evaluated the experience of the content and processes of an adapted risk reduction counseling model. Previous research has focused investigation on the efficacy of such models for South Africa. The efficacy of these counseling models was assessed in terms of

changing risk behaviors, rather than evaluating the experience of the counseling interventions' content and processes (Heeren et al., 2013; Jemmott III et al., 2010a; Jemmott III et al., 2010b; Kalichman and Simabyi, 2009). For example, a brief one-session group HIV risk-reduction counseling intervention among men undergoing medical circumcision in South Africa showed that brief and focused HIV risk-reduction counseling can have at least short-term effects on reducing sexual risk behaviors (Peltzer et al., 2012).

Heeren et al. (2013) conducted a randomized controlled trial to test the efficacy of an eight-module HIV risk-reduction intervention based on social cognitive theory. The study sample consisted of 176 university students aged 18 to 24 from the Eastern Cape Province, South Africa. The results showed that participants exposed to the HIV risk-reduction intervention reported less frequent unprotected vaginal intercourse and more frequent condom use than those in the health-promotion control intervention. The health-promotion control intervention focused on physical activity, fruit and vegetable consumption, and risk behavior of non-communicable diseases (Heeren et al., 2013).

Jemmott III et al., (2010b) tested the efficacy of a school-based six-session HIV/STI risk-reduction intervention based on behavior-change theories. The sample consisted of 1 057 school-going adolescents aged 9 to18 in a rural area of the Eastern Cape Province in South Africa. The results showed that fewer intervention participants reported having unprotected vaginal intercourse and multiple sexual partners than did control participants.

Participants in the present study suggested having more public advertisements for HIV-testing services to raise greater awareness among the target population. Findings from other researchers have shown that many young people in South Africa are aware that HCT services are available and show an interest in testing for HIV (De Bruyn et al., 2006; Francis, 2010;

Hendriksen et al., 2007; Mathews et al., 2009; MacPhail et al., 2008). Despite the high interest in testing, there has been low uptake of HCT among adolescents in South Africa because of low risk perception, fear of stigma, breaches in confidentiality at testing sites, and lack of adolescent-friendly services (De Bruyn et al., 2006; Kibombo et al., 2008; Mathews et al., 2009). An advantage of the present study is that most participants regarded the counseling environment as private, one in which they could share details about their sexual relationships. Most participants regarded their interaction with the counselors as favorable, because the counselors were friendly and non-judgmental. Participants regarded these aspects as important when engaging in open and trusting conversations about intimate topics, though male adolescents raised concerns about openly discussing sex with female counselors.

An important finding of the present study is that the counseling session was brief but the overall study visit lengthy. School-going adolescents could not attend long study visits during school hours; they had to attend study visits after school or over weekends. Participants who attended study visits after school could not attend a three-hour session if school dismissed late in the afternoon, so study staff members had to split the visit into two sessions to accommodate adolescents at the clinic after school.

An advantage of the present study is that risk-reduction counseling was tailored in accordance with participants' personal risks. Participants completed an online socio-behavioral risk assessment that informed the counseling session so that the counselor could provide a tailored risk-reduction counseling session. Most of the participants indicated that they had a boyfriend or girlfriend, and that more than half had engaged in sexual activity. Outcomes of the socio-behavioral risk assessment indicated that most adolescents reported engaging in protected sexual activities.

The CDC risk reduction counseling intervention was the standard form of HIV risk-reduction counseling used in vaccine trials in South Africa. Based on the positive feedback on the content and processes from the adolescents in the present study, the adapted CDC risk reduction counseling intervention has the potential to be translated into a counseling model for incorporation into future HIV vaccine trials for adolescents. The adapted intervention is unique as it includes an online socio-behavioral risk assessment and is informed by a multi-level approach to risk profiling and risk reduction while encouraging condom use.

6.7 Chapter Summary

The CDC risk reduction counseling intervention was adapted to be developmentally and contextually tailored among adolescents likely to participate in future HIV vaccine trials. Adaptations were made based on: quantitative and quantitative data collected in Phase 1, the literature review of the present study, and input from the research team who had experience in adolescent research. Phase 2 provided evidence for the feasibility of using the adapted CDC risk reduction counseling intervention among a sample of adolescents. Participants who participated in the piloting of the adapted intervention provided (mostly) positive feedback about their experience of the adapted CDC risk reduction counseling intervention among adolescents. Thus, the results also showed that the adapted intervention was acceptable among a sample of adolescents likely to be participants in future HIV vaccine trials.

Chapter Seven

Summary, Limitations, Implication and Recommendations, and Conclusions

7.1 Introduction

The results of the present study add to the data on sexual and HIV risk behaviors among adolescents in South Africa. In so doing, this study provides evidence for the use of a composite measure to address HIV risk behaviors. The HIV risk scale showed good internal consistency among the sample of adolescents studied. Thus, this study provides a unique contribution to the literature on measuring risks for HIV among adolescents in Soweto, South Africa by considering multiple levels of influence. Reaching a more complete understanding of the interaction of ecological factors contributing to sexual risk behaviors in adolescents enabled the development of a tailored counseling intervention for those needing it the most. The adapted Project CDC risk reduction counseling intervention was pilot tested for acceptability and feasibility among the target population through the use of Bronfenbrenner's ecological systems theory and the integrative model of behavioural prediction. The adapted CDC risk reduction intervention was found to be acceptable, with favorable outcomes for adolescent participants in the pilot phase of the present study.

7.2 Limitations of the study

There were a few limitations in all phases of the present study.

7.2.1 Limitations of Phase 1a.

First, the results are geographically localized, reflecting the opinions and perceptions of

adolescents and parents living in Soweto as well as counselors working in HCT centers in that township. Some participants were selected from organizations providing services to individuals infected by and affected by HIV. These participants may have been different to the general population of Soweto in that they may have had higher health seeking behaviors, had more knowledge about HIV and risks for HIV. These results thus cannot be generalized but must be understood in the context of the participants who participated in the study. However, much of the data from the FGDs could be understood and connected to other such research studies conducted globally and locally among adolescent samples. Second, FGDs as a qualitative method is criticized for facilitating opinions that may be focused on group norms. However, the facilitators attempted to solicit diverse views. Despite this limitation, the study's strength is that different groups provided insights about the risks for HIV among adolescents in Soweto. The FGDs were lengthy, which may have resulted in fatigue among participants. To address fatigue, participants were provided with a break and refreshments. The data are subject to social desirability bias; thus participants may have exaggerated or under-reported. Despite these limitations Phase 1a and b used a mixed methodology, which is a strength of the present study.

7.2.2 Limitations of Phase 1b.

A stratified convenience sampling method was used. This sampling method is biased therefore the results cannot be generalised to all adolescents in Soweto. The sample was not randomly selected therefore each adolescent in Soweto did not have an equal chance of being selected to participate in the study. However, participants were selected from all areas (townships) in Soweto to address this limitation. A potential strength of the sampling method is that recruitment was not restricted to venues such as schools or clinics, thereby maximising the

potential to include vulnerable adolescents who may be outside of formal systems. Nonetheless, the findings must be understood within the context of the participants who participated in Phase 1b of the present study. Data were collected through self-report and interviewer administered methods, which are both subject to response bias. In some instances, participants may have under-reported or exaggerated behaviors due to interviewer administration. Participants were asked to complete the survey based on their experiences in the past, which would have been influenced by their ability to accurately recall information. The surveys were administered in English, which may have resulted in participants misunderstanding certain concepts. However, interviewers spoke the local languages and were trained in survey administration.

7.2.3 Limitations of Phase 2.

This phase entailed a small feasibility study. The first limitation regarding it was its small sample size. The second limitation is that a qualitative methodology was used. Thus, the results cannot be generalized to all adolescents in Soweto. However, participant feedback about the adapted CDC risk reduction counseling intervention does provide some general insights to finalize the counseling for adolescents participating in future biomedical trials. The third limitation is that participants may have been influenced by response bias in completing the risk assessments and in-depth interviews. However, counselors and interviewers were experienced in clinical trials and they received training on counseling intervention protocol. Fourth, some participants were selected because they had participated in previous HIV prevention research for young people; therefore, their responses would have been influenced by their previous participation in HIV research. This could also be regarded as a strength as their feedback would have been informed by actual participation in a research study. However, it is necessary to state

that these participants were not explicitly asked about their participation in the previous research study. Participants recruited through the community would not have been able to talk about their previous participation in HIV prevention research. However, their feedback may have been influenced by any interactions they may have had in the public or private health sector.

7.3 Implications and Recommendations

7.3.1 Phase 1a.

The qualitative data from the focus group discussions provides important considerations to investigators who will conduct HIV prevention trials among adolescents. These considerations are discussed below:

Family-based interventions are critical to address risk reduction within the ecological systems theory. Family based interventions may not be possible within the scheduled study visits of adolescents in future HIV vaccine trials due to time limitations and confidentiality of the adolescents participation. However, separate workshops and education sessions could be arranged for adolescent participants and their parents over weekends and during school holidays. I recommend that sessions for parents include information about parenting styles that could be inhibiting, or facilitating better parent-adolescent relationships, in general, and communication about sexuality and sexual health, in particular. Discussions about sexuality could be framed within culturally sensitive talks about HIV/AIDS to promote correct condom use at each sexual act. Based on the data of the FGDs parents also require the skills to critically discuss the media that their children are accessing so that adolescents understand the consequences of lived experiences versus content portrayed on television. In addition parents could be equipped to speak with their children about the use of contraception to prevent pregnancy and condoms to

prevent STIs, including HIV. Parents could also be guided to deter adolescent girls from dating older men and pointing out the risks and consequences that may arise when engaging in intergenerational sexual relationships. This should be combined with strategies that will assist families who require access to government social grants and food parcels.

Gender specific messaging is important in providing tailored risk reduction counseling. For females, emotion regulation and intergenerational sexual relationships with older men are necessary to address. For males counseling may address the importance of sexual relationships that do not perpetuate gender-based violence towards women.

Participants in HIV vaccine trials usually attend scheduled study visits that are three to six months apart. The gap between study visits provides investigators with an opportunity to incorporate retention strategies that also addresses aspects that can not be included in the risk reduction counseling session. For instance, group education sessions could be provided to address healthy ways of coping with stress, how to improve parent/caregiver-adolescent relationships and consequently parent/caregiver-adolescent communication.

The data on homosexuality provides insights into improving the collection of sexual risk information and the overall clinic experience of LGB adolescents. Questions about sexual orientation could be included in sexual risk interviews that will inform sexual and reproductive health counseling so that the appropriate services and interventions can be provided regardless of sexual orientation. A gender neutral atmosphere is recommended in the clinic waiting areas and patient rooms by including the input of LGB adolescents in setting up these spaces. In addition, the adolescent CAB should include representation from the LGB community.

Further investigation into the prevalence of group sexual events in South Africa is warranted. More qualitative research is recommended to provide the foundation with regard to

the words that adolescents use to describe these events and how to facilitate conversations and reports of these covert events among adolescents and young people. Counselors will have to be mindful of using colloquial words related to group sex events in order to address risk reduction with adolescents who do engage in these events.

7.3.2 Phase 1b.

Future cross-sectional surveys could incorporate random sampling methods so that the results can be generalised to all adolescents in Soweto. Studies that collect self-reported behavioural data could also be compared to biological data such as pregnancy, STIs and HIV test results. Researchers will have a better understanding of adolescent risks by comparing self-reported data and biological data. Longitudinal data can also be collected to assess behavioural risk changes over time. Future work should focus on further investigating the role of depression on adolescent risks for HIV.

7.3.3 Phase 2.

This phase provided preliminary findings about the feasibility of using the adapted CDC risk reduction counseling intervention among older adolescents. An important finding of the present study is that three of the 21 participants in Phase 2 did not return for the second visit. Further, the first participant explicitly stated that the overall study visit was too lengthy. The counseling session was brief but the overall study visit was lengthy. School-going adolescents may not be able to attend long study visits during school hours. It is thus likely that they will attend study visits after school or over weekends. Participants who attend study visits after school may not be able to attend a three-hour session if school dismisses late in the afternoon.

Investigators of future adolescent biomedical trials will have to consider the length of study visits when enrolling adolescent participants into such trials. In addition, the informed consent process should clearly state the range of the time required to perform the procedures of the study visit so that participants do not leave the study due to lengthy study visits. Future research is recommended to test the efficacy of this intervention in the context of a biomedical trial for adolescents.

7.4 Conclusions

The HIV pandemic remains a public health crisis, with millions of (mainly young) people affected and infected globally (UNAIDS, 2013). South Africa is at the epicenter of this pandemic, with the highest global burden (Shisana et al., 2014). As shown in Chapter Two, much needed socio-behavioral and biomedical research has been developed, implemented, and tested among South African samples aimed at reducing HIV incidence among those most at risk, that is, young people (Jewkes et al., 2008; Pettifor et al., 2013). Socio-behavioral HIV prevention strategies have shown limited success in reducing HIV incidence among South Africans. Thus, a biomedical intervention, such as an efficacious prophylactic HIV vaccine that is provider-administered, offers hope in making a more marked dent on HIV incidence among South Africans. Researchers argue that such a vaccine will have the most affect among adolescents prior to sexual debut. However, a vaccine can only be tested among adolescents once sufficient efficacy has been shown among large samples of adults. In the context of enrolling adolescents into future HIV vaccine efficacy trials, investigators will have to offer a combination of strategies to reduce risk for HIV and sexual risk compensation among adolescents. It is within this context that the present study provides a critical contribution to the literature.

The study provides a brief developmentally and contextually tailored psychosocial intervention that can be used within any future biomedical clinical trial enrolling adolescents. The results showed acceptability and feasibility among a sample of adolescents likely to be participants in an HIV vaccine trial in the future. Based on the positive feedback of participants' experience of the content and processes, the adapted CDC risk reduction counseling intervention has the potential to be translated into a counseling model that can be used internationally and locally in future HIV vaccine trials for adolescents. The adapted intervention is unique as it includes an online socio-behavioral risk assessment and is informed by a multi-level approach to risk profiling and risk reduction while encouraging condom use.

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Appendix A: Phase 1a Focus Group Discussion Guides

FOCUS GROUP DISCUSSION FOR ADOLESCENTS

DEVELOPING AND VALIDATING A CULTURAL AND AGE APPROPRIATE RISK REDUCTION COUNSELING INTERVENTION FOR ADOLESCENT HIV VACCINE TRIAL PARTICIPANTS

Principal Investigator: Dr Glenda Gray

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Areas to cover:
Environment –urban/rural
Family Structure
Peer group - activities
Career goal – school /working/at home
How they plan to attain goals
Extramural/hobbies
HIV risk activities – sexual intercourse, drugs, alcohol
Sexual intercourse – where, when, how

Introduction to group (5-10 minutes)

Greetings everyone. Thank you for coming to talk to me/us today. We really appreciate the time and commitment on your part and look forward to a productive session with you.

My name is …… I/we work for Wits University. We would like to learn more about how teenagers, like you, live in Soweto. We also want to know about the challenges that you face in your daily lives. So, we are going to talk to you about where you live, your family, your schooling, your friends and what you like to do in your spare time. We are interested in understanding more about you because we want to develop specific counseling programmes for

teenagers. The aim is to use these counseling programmes to help teenagers prevent HIV infection.

Emphasise confidentiality
Please remember that everything you tell us in this session is confidential however we can not control the actions of your fellow participants. We will not tell your parents about what you share with us today. Please respect the opinion and personal matters of others and you should not talk about the personal things that people brought up to other people outside of this group.

Would you like to ask any questions before we start? Allow time to address questions.

Then set ground rules for the session.
These will be put on the wall as reminders throughout the session

- Please switch off your cell phone
- Speak one at a time and let others complete what they have to say before starting to speak. If you want to speak and others are speaking, please raise your hand so that the facilitator can ensure that you will have your turn.
- Please respect the opinion and personal matters of others and do not talk to other people outside of this group about personal issues that are brought up during the discussion today.
- All opinions should be respected even if they are different to yours.
- Ask for their input

Start Focus Group Discussion

Environment
Let's start off by talking about where you live…….
Tell us about the area that you live in. (Urban/rural/neighbourhood/)
What's good about living in your area, street?
What's not good about living in your area, street?
How safe do you feel in your neighbourhood?
What are things that make you feel safe?
What are things that make you feel uneasy or uncomfortable?
When do you feel threatened or possibly in danger?

Family Structure
Who do you live with? (Family structure – family support –financial, emotional and informational support)
Who works in your family?
Who do you speak to when you have a problem? Who do you ask for advice when you have a problem?
What is good about your family?
What's not so good about your family?
Do you feel you can discuss intimate things with your parents?

Schooling

Are you attending school? Yes, where (Is your school in the area where you live?)
No, what are you doing? If you are not at school do your parents know about it?
What are the reasons that you are not attending school?

What's good about your school? How safe do you feel at school?
How do you go to school? Probe reasons for mode of getting to school.
What's a typical day at your school? Probe into school activities.
Who do you talk to if something happens to you at school? Probe if necessary around family support, school, and friends. Who can you talk to about your problems? Who do you share good experiences with?
Do you have good teachers? Is your principal a good leader?
If yes what makes them good, or bad?

What kinds of pressure (what kinds of things are difficult for you) do you have as a teenager? Young people sometimes feel 'stress' or have emotional feelings that are hard to tell others about. Have you had these types of feelings or experiences? How would you describe them? What do you do when you have these feelings?

A lot of teenagers get depressed or feel sad/unhappy? What do you think depression is? Why do you think teenagers become depressed?
Have any of you ever thought about hurting yourselves? Do you know what suicide is? What things do think will make teenagers commit suicide? Do you know of anyone who committed suicide?
What kind of support services does your school offer? Are the services different from other schools? What would you like your school or community to offer?

What are your/your friends' hopes and goals? What are your dreams for the future? How do you think young people can succeed even if in a difficult situation? What advice would you give a teenager who was in a difficult circumstance?

Peer Group Activities

Let's talk about your friends. Where do they live? Do you have the same friends at home and at school? Probe into social networks. Do you have a best friend? How would you describe a best friend?

What kinds of things do you do with your friends (after school, weekends, and school holidays)?
What about with your best friend? How would you describe your best friend and what do you like best about him or her?
What do your friends do when they go out?
Are there things that your friends do that you like?
Are there things that your friends do that you don't like?
Are there things that your friends do that your parents and teachers will not like or would be worried about?

Sexual Issues
Now we are going to talk about some things that may be sensitive or difficult to talk about but we really want to see how we can help you. Try to tell me/us about what you know and remember that we want to understand how young people live their lives.

Relationships
Do many of your friends have girlfriends/boyfriends?
Have you had a girlfriend/boyfriend?
From what age is it ok to have a girlfriend/boyfriend?
What's nice about having a girlfriend/boyfriend? What do they do when they are together?
Do you know about girls who have older boyfriends? Why do you think they have older boyfriends? Sometimes older boyfriends buy girls presents and give them money what do you think about this?

Do boyfriends and girlfriends kiss?
Is it okay for girls and boys to touch each other?
At what age is it okay for boys/girls to have sex?
How did you learn about having sex?
When I say 'sex' what does that mean to you?
Who can you talk to about your girlfriend/boyfriend?
Who can you talk to about having sex?

Have you heard of, or heard your friends talk about, times when young people have sex – but not in a boyfriend/girlfriend type of relationship? What have you heard?

Has this included sex that is forced, coerced/manipulated, or in exchange for something someone needs or wants? What, if any, of these types of experiences have you heard about? Are you worried about?

Are you worried about pregnancy? What could you do to avoid pregnancy?

What do you think about a boy kissing another boy? (Girl vs. girl)
How do your friends/the community feel about it?

Risks
Young people / adolescents your age like to experiment with many things. This might include drinking or using drugs. What do they drink or use? How do they get it (alcohol, use the examples they give)? Where do they drink (taverns, pubs?).

What concerns do you have about yourself or your friends drinking, using drugs, having sex?

Some of these activities happen in places like at parties. If you have ever been to a party, tell us what normally happens. We have heard a lot of words to describe the sex that sometimes happens at parties. What words or experiences have you heard of?

If no response….What about words like gang bang, streamlining. Have you heard about this? What other words do you use when they talk about sex, alcohol, substances etc?

What music do you like to listen to? Where do you go to listen to music (club, taverns, pubs, shebeens) Do teenagers sometimes use things like alcohol, drugs to help them to listen to the music?

There are many ways to prevent pregnancy, sexually transmitted infections (Do you know what a STI is) and HIV. Has someone (home, school community) ever talked with you about these health issues? Where did you learn about contraception or pregnancy prevention? Where do you get your information from to prevent pregnancy or HIV or STIs?

Teenagers sometimes use condoms. What do the young people you hang out with think about using condoms? Do you think/know whether your friends who are sexually active are using condoms? How and where do they get the condoms?
Is it easy to go to a nurse/doctor/clinic to get the condoms?

We have heard that girls sometimes have anal sex so that they don't become pregnant. Does that happen where you live? Probe further…..
Do you think HIV/AIDS is a problem in your community? Among whom? Do others see it as a problem too? Do you know anyone who has HIV (family/friends)? Do you think it could affect you? Have you spoken to your family about HIV?

Now remember the reason we spoke to you today. We wanted to talk to you so that we can develop a programme that will help to prevent teenagers from becoming infected with HIV. If you had to develop this programme how would you do it?

Appendix A: Phase 1a Focus Group Discussion Guides (continued)

FOCUS GROUP DISCUSSION FOR PARENTS

DEVELOPING AND VALIDATING A CULTURAL AND AGE APPROPRIATE RISK REDUCTION COUNSELLING INTERVENTION FOR ADOLESCENT HIV VACCINE TRIAL PARTICIPANTS

Principal Investigator: Dr Glenda Gray

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Areas to cover:
Environment –urban/rural
Family Structure
Peer group - activities
Career goal – school /working/at home
How they plan to attain goals
Extramural/hobbies
HIV risk activities – sexual intercourse, drugs, alcohol
Sexual intercourse – where, when, how

Introduction to group (5-10 minutes)

Greetings everyone. Thank you for coming to talk to me/us today. We really appreciate the time and commitment on your part and look forward to a productive session with you.

My name is …… I/we work for Wits University. We would like to learn more about how teenagers, like your children, live in Soweto. We also want to know about the challenges that teenagers face in their daily lives. So, we are going to talk to you about where you live, your family, your children's daily lives: like their schooling, their friends and what they like to do in their spare time. We are interested in understanding more about your children because we want to develop specific counseling programmes for teenagers. The aim is to use these counseling programmes to help teenagers prevent HIV infection.

Emphasise confidentiality
Please remember that everything you tell us in this session is confidential. We will not share the information with your children or others in the in the community. Please respect the opinion and personal matters of others. Some of the information that you share may be personal and sensitive. So, you should not talk about the personal things that people brought up in this group to other people outside of this group.
Would you like to ask any questions before we start? Allow time to address questions.

Then set ground rules for the session.
These will be put on the wall as reminders throughout the session

- Please switch off your Cell phone
- Speak one at a time and let others complete what they have to say before starting to speak. If you want to speak and others are speaking, please raise your hand so that the facilitator can ensure that you will have your turn.
- Please respect the opinion and personal matters of others and do not talk to other people outside of this group about personal issues that are brought up during the discussion today.
- All opinions should be respected even if they are different to yours.
- Ask for their input

Start Focus Group Discussion

Environment
Let's start off by talking about where you live…….

Tell us about the area that you live in. (Urban/rural/neighbourhood/)
What's good about living in your area, street?
What's not good about living in your area, street?
How safe are your children in your neighbourhood? (Probes -What are the things that make you feel safe? What are things that make you feel uneasy or uncomfortable?)
What are the dangers that you think your children face in the community?
What challenges do teenagers face in the community?

Family Structure
Who lives in your household? (Family structure – family support –financial, emotional and informational support)
Who works in your family? Who is the breadwinner?
What is good about your family?
What's not so good about your family?
Who do your children speak to when they have a problem? Who do they ask for advice when they have a problem? Who do they mainly speak to? Are you comfortable with the person they speak to? Yes then ask why. No, why not.
Do your children speak to you about their problems (if not in the list above)? What do they speak to you about (home, school, boy/girlfriend)?

Do you feel you can discuss intimate things with your children? (Like sex) No, why not? Yes, what intimate information do your children share with you? Have you ever discussed menstruation and sex with your daughter? No, why not?
Have you ever discussed sex with your son?

Schooling
Are your children attending school? Yes, where (Is the school in the area where you live?) No, what are they doing?
Are there times when you know that your children are not at school? (Address truancy)
What are the reasons that they are not attending school? What do you do about it (children not attending school)?

What's good about your child's school? How safe do you feel your child is at school?
How does your child go to school? Probe reasons for mode of getting to school.

What's a typical day at your child's school? Probe into school activities.
Who does your child you talk to if something happens to you at school? Probe if necessary around family support, school, and friends. Who can they talk to about their problems? Who do they share good experiences with?
Do your children have good teachers? If yes what makes them good, or bad?
Do you know about the Life Orientation Programme that children receive at school? If yes, do you know that the LO Programme covers sex and sexuality? How good do you think the information is?

What kinds of pressure (what kinds of things are difficult for teenagers) do children have as teenagers? Who helps your child with his/her homework?
Young people sometimes feel 'stress' or have emotional feelings that are hard to tell others about. Have your children had these types of feelings or experiences? How would you describe them?

A lot of teenagers get depressed or feel sad/unhappy? What do you think depression is? Why do you think teenagers become depressed? Would you know if your children are depressed?
Do you know of teenagers that have thought about hurting yourselves? Probe further. Why do think teenagers commit suicide?
What kind of support services does your child's school offer? Are the services different from other schools? What would you like your school or community to offer?

What are your children's hopes and goals? What are your children's dreams for the future? How do you think young people can succeed even if in a difficult situation? What advice would you give a teenager who was in a difficult circumstance?

Peer Group Activities
Let's talk about your children's friends. Where do they live? Do you ever meet the parents' of your child's friends? If not – why not? Do they have the same friends at home and at school?

Probe into social networks. Does your child have a best friend? How would you describe a best friend? **If yes,** what do you like best about your child's best friend?

What kinds of things does your child do with his friends (after school, weekends, and school holidays)?
What do your children do when they go out?
Are there things that your children do that you like?
Are there things that your children do that that you don't like?
Are there things that your children do with their friends with that you are and his/her teachers/elders would be worried about? What do you about it?

Sexual Issues
Now we are going to talk about some things that may be sensitive or difficult to talk about but we really want to see how we can help teenagers. Try to tell me/us about what you know and remember that we want to understand how young people live their lives.

Relationships
Do you think many teenagers have girlfriends/boyfriends?
Does your child have a girlfriend/boyfriend?
From what age is it ok to have a girlfriend/boyfriend?
Why do you think it is important for teenagers to have a girlfriend/boyfriend? What do you think they do when they are together? Do you know what they do when they are alone?
Do you know about girls (boys) who have older boyfriends (girlfriends)? Why do you think they have older boyfriends/girlfriends? Sometimes older boyfriends/girlfriends buy girls/boys presents and give them money what do you think about this?

Do you know if boyfriends and girlfriends kiss?
Is it okay for girls and boys to touch each other?
At what age is it okay for boys/girls to have sex?
How do you think teenagers learn about having sex?
When I say 'sex' what does that mean to you? Do you think your teenager is having sex? How do you feel about this?
Who can they talk to about their girlfriend/boyfriend?
Who can they talk to about having sex?

Have you heard of, or heard your friends talk about, times when young people have sex – but not in a boyfriend/girlfriend type of relationship? What have you heard?

Has this included sex that is forced, coerced/manipulated, or in exchange for something someone needs or wants? What, if any, of these types of experiences have you heard about? Are you worried about?

Are you worried about pregnancy? What can teenagers do to avoid pregnancy?

What do you think about a boy kissing another boy? (Girl vs. girl)
How do think parents/the community feel about it?

Risks
Young people / adolescents your children's age like to experiment with many things. This might include drinking or using drugs. What do you think they drink or use? How do they get it (alcohol, use the examples they give)? Where do they drink (taverns, pubs?). How do they pay for it?

What do you think about teenagers drinking, using drugs, and having sex? (3 separate questions)
What do you think the consequences are of teenager drinking, taking drugs?

What music do teenagers like to listen to? Where do you they to listen to music (club, taverns, pubs, shebeens) Do teenagers sometimes use things like alcohol, drugs to help them to listen to the music?

There are many ways to prevent pregnancy, sexually transmitted infections and HIV. Do you know what an STI is? Do you know what HIV is?
What prevention methods do you think teenagers use to prevent (1) pregnancy (2) STIs and (3) HIV? What prevention methods do your children use? Would you feel comfortable with your teenagers using prevention?

Has someone ever talked to your child about these health issues (home, school, community? Who? Where do you think teenagers learn about contraception or pregnancy prevention? Where do they get information from to prevent pregnancy or HIV or STIs?

Teenagers sometimes use condoms. Do you think/know whether your children are sexually active? Do you know if they are using condoms? How and where do they get the condoms?
Is it easy for them to go a nurse/doctor/clinic to get the condoms?
Do you look for condoms/birth control in the rooms/bags?

We have heard that girls sometimes have anal sex so that they don't become pregnant. Does that happen where you live? Probe further…..

Do you think HIV/AIDS is a problem in your community? Among whom? Do others see that as a problem? Do you know anyone who has HIV (family/friends)? Do you think it could affect you? Have you spoken to your family about HIV? Have you spoken to your teenager about HIV?

Now remember the reason we spoke to you today. We wanted to talk to you so that we can develop a programme that will help to prevent teenagers from becoming infected with HIV. If you had to develop this programme how would you do it?

Appendix A: Phase 1a Focus Group Discussion Guides (continued)

FOCUS GROUP DISCUSSIONS FOR COUNSELLORS

DEVELOPING AND VALIDATING A CULTURAL AND AGE APPROPRIATE RISK REDUCTION COUNSELLING INTERVENTION FOR ADOLESCENT HIV VACCINE TRIAL PARTICIPANTS

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Introduction
Good day everyone. Thank you for coming to talk to us today. We are really grateful for your time and we are looking forward to a productive session.

My name is …… I work for the Perinatal HIV Research Unit based at Baragwananth Hospital. Currently we do VCT for adults and looking to develop a protocol for adolescents. As people who are or have been working with the youth, we would like you to give us an understanding of your experiences in working with adolescents.

Set ground rules for the session.

Questions

1. **Demographic information**
- Age, gender, years as a counsellor, organization
- How long have you worked with adolescents?
- What kind of work do you do? (telephone counselling, rape crisis, etc)

2. **Training**
- Please tell us when and where you were trained to be a counsellor
- What guides your counselling? (counselling approach)
- How long have you used this approach? How has it been for you?

- What special training did you receive (if any) to work with adolescents?

3. Work experience

- What have been your experiences in working with adolescents?
- What have you enjoyed most in working with adolescents?
- What has been difficult/challenging for you in working with adolescents?
- Do you feel that teenagers are able to open up to you about their risk behaviour despite your age differences?
- Do you feel that teenagers are able to open up to you about their risk behaviour despite your gender differences?
- How often do you see adolescents during school hours?
- How has working with the following adolescents affected you?

—Suicidal
—Abused (emotional, sexual)
—Use alcohol/drugs
—Engage in transactional sex
—Pregnant/young parents

4. Counselling

- What effect do some of the words that adolescents use, have on you? (fuck, skommor, bang, etc)
- Have you been trained on the CDC Risk Reduction approach?
- If yes, how has this guided your counselling with adolescents?
- If no, how do you think it would affect your counselling adolescents? (will explain approach to them)
- Do you think this is the best approach?
- In what ways do you think this approach can assist counsellors working with adolescents?

5. Support

- What are some of the issues that affect you emotionally in working with adolescents?
- What motivates you to do your job?
- Have you ever felt depressed/burnt-out as a result of your job?
- What support, if any, do you receive?
- In what form is this support? (verbal, written, training, debriefing, etc)
- How often?
- What training would benefit you?

Appendix B: Phase 1b Research Instrument

CROSS-SECTIONAL QUESTIONNAIRE
DEVELOPING AND VALIDATING A CULTURAL AND AGE APPROPRIATE RISK REDUCTION COUNSELLING INTERVENTION FOR ADOLESCENT HIV VACCINE TRIAL PARTICIPANTS

Hello my name is _____. I am currently working with the Perinatal HIV Research Unit. In this study we would like to know more about how young adolescents, in Soweto live. We want to know about the challenges that adolescents face in their daily lives. So, we are going to ask you in particular about sexual and substance use behavior, psychological, emotional and physical wellbeing as well as questions about social and family support. **We will also ask you questions about your relationships with your parents and/or guardians (a guardian in this study refers to a person whom you live with and is responsible for taking care of you).** We are interested in understanding more about you because we want to develop a more appropriate and specific counseling program for adolescents. The aim is to use these counseling programs to help teenagers prevent HIV infection.

You have been invited as a possible participant because you are between 16-18 years of age and because you live and/or attend school in Soweto. If you agree to participate in this study, please fill in the questionnaire attached to this information sheet. The questionnaire will take approximately an hour to complete. Please neatly fill in the questionnaire by **making a cross in the box (e.g.** ☒ **).** If you make a mistake **put one line across the box (e.g.** ☒ **).**

You will be asked to sign a consent form before you fill in the questionnaire and you will get a copy to keep. Read the information provided on the consent form and ask questions about anything you do not understand before deciding whether you would like to participate or not.

Thank you for taking time to participate in this study!

Perinatal HIV Research Unit (PHRU)

DataFax # 018 Form 001 Visit # 010

Volunteer ID ☐☐☐☐

Demographic Form

Visit Date ☐☐ ☐☐☐ ☐☐☐☐ (*dd* *MMM* *yyyy*)

1. Gender *Male* ☐ *Female* ☐
2. Age ☐☐ years old
3. Where in Soweto do you live? _____
4. How would you identify yourself? (e.g. Zulu, Pedi, Tsonga) _____
5. Primary (main) home language:

Afrikaans	☐	IsiZulu	☐	SiSwati	☐
English	☐	Northern Sotho	☐	Tshivenda	☐
IsiNdebele	☐	Sesotho	☐	Xitsonga	☐
IsiXhosa	☐	Setswana	☐	Other(Please Specify)	_____

6. Where do you attend school?
   ☐ In Soweto ☐ Out of Soweto: in which area? _____
7. Schooling history:

Grade/s repeated	How many times	Reason for repeating	Not Applicable ☐
Grade 1 ☐	☐	_____	
Grade 2 ☐	☐	_____	
Grade 3 ☐	☐	_____	
Grade 4 ☐	☐	_____	
Grade 5 ☐	☐	_____	
Grade 6 ☐	☐	_____	
Grade 7 ☐	☐	_____	
Grade 8 ☐	☐	_____	
Grade 9 ☐	☐	_____	
Grade 10 ☐	☐	_____	
Grade 11 ☐	☐	_____	
Grade 12 ☐	☐	_____	

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DataFax # 018 Form 003 Visit # 010

Volunteer ID

Demographic Form

8. Is your mother alive?
   - ☐ Yes
   - ☐ No
   - ☐ Don't know

9. Is your father alive?
   - ☐ Yes
   - ☐ No
   - ☐ Don't know

10. What is the educational level of the following people? (Tick all that apply)

	Mother	Father	Guardian
Primary School	☐	☐	☐
Secondary School	☐	☐	☐
Matric	☐	☐	☐
Post-school training	☐	☐	☐
Don't know	☐	☐	☐

11. Parents / Guardian's occupational status?

	Mother		Father		Guardian	
	Yes	No	Yes	No	Yes	No
Self Employed	☐	☐	☐	☐	☐	☐
Student	☐	☐	☐	☐	☐	☐
Salaried worker	☐	☐	☐	☐	☐	☐
Unemployed and able/willing to work	☐	☐	☐	☐	☐	☐
Unemployed and unable/unwilling to work	☐	☐	☐	☐	☐	☐

Other, specify _____

12. What are your parents or guardian's marital status?
   - ☐ Never Married
   - ☐ Divorced
   - ☐ Seperated
   - ☐ Widowed
   - ☐ Married: Legal
   - ☐ Married: Traditional
   - ☐ Living together, not married
   - ☐ Same sex partner

13. How many people live in your house? ☐☐

14. How many rooms in total are there in your house? ☐☐

15. What is the main material that the walls of your house are built of?
   - ☐ Brick house owned by family
   - ☐ Brick house that family is renting
   - ☐ Flat owned by family
   - ☐ Flat that family is renting
   - ☐ RDP house
   - ☐ Hostel (Brick)
   - ☐ Shack - Informal settlement
   - ☐ Shack - Backyard
   - ☐ Other, specify _____

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DataFax # 018 Form 005 Visit # 010

Volunteer ID

Demographic Form

16. What is your main source of drinking water?

- ☐ Tap water in home
- ☐ Community tap
- ☐ Water tank / carrier
- ☐ Other, Specify _____

17. Please tell us about your family / household's means of getting money that are non-work related. (Mark all that apply)

	Yes	No
None	☐	☐
Old Age Pension	☐	☐
Disability Grant	☐	☐
Child Support Grant	☐	☐
Private/Work Related Pension	☐	☐
Financial or non-financial gifts from household member	☐	☐
Financial or non-financial gifts from non-household member	☐	☐
Receiving money from business	☐	☐
Foster care grant	☐	☐
Don't know	☐	☐

Other, specify _____

18. Who is the head of your household?

- Female (18 - 60 Years) ☐
- Male (18 - 60 Years) ☐
- Female child less than 18 Years ☐
- Male child less than 18 Years ☐
- Female > 60 Years ☐
- Male > 60 Years ☐

19. Who is the person mentioned in question no. 18?

- Mother ☐
- Father ☐
- Aunt ☐
- Uncle ☐
- Grandmother ☐
- Grandfather ☐
- Other (Specify) ☐ _____

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Perinatal HIV Research Unit (PHRU)

DataFax # 018 Form 007 Visit # 010

Volunteer ID

Demographic Form

20. Please tick the people who live in your household and how often they have been home in the past six months?

Household Member	All the time	More than 3 times a week	Less than 3 times a week.
Mother	☐	☐	☐
Father	☐	☐	☐
Step Father	☐	☐	☐
Step Mother	☐	☐	☐
Mother's Boyfriend	☐	☐	☐
Father's Girlfriend	☐	☐	☐
Grandfather	☐	☐	☐
Grandmother	☐	☐	☐
Aunt	☐	☐	☐
Uncle	☐	☐	☐
Older brother(s)	☐	☐	☐
Older sister(s)	☐	☐	☐
Younger brother(s)	☐	☐	☐
Younger sister(s)	☐	☐	☐
Other Relative: _____	☐	☐	☐
Other People: _____	☐	☐	☐

21. Who makes decisions about you in your household about the following?

	Mother	Father	Guardian	Grand Parent	Other:
Money	☐	☐	☐	☐	☐ _____
Schooling	☐	☐	☐	☐	☐ _____
Recreation	☐	☐	☐	☐	☐ _____

22. Do your parents / guardians / grandparents discuss decisions about you?

Yes ☐ No ☐ Don't know ☐

23. Do your parents / guardians / grandparents discuss decisions with you?

Yes ☐ No ☐ Don't know ☐

24. Do you have a say in decisions made about you?

Yes ☐ No ☐ Don't know ☐

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PERINATAL HIV RESEARCH UNIT

DataFax #018 Form 031 Vist # 010

Volunteer ID ☐☐☐☐

Depression

Below are some feelings and ideas listed in groups of three sentences. From each group pick ONE sentence that describes you best for the past two weeks. After you pick a sentence, then go on to the next group.

There is no right or wrong answer. Just pick the sentence that best describes the way you have been recently. Put the mark in the box next to the sentence that you pick.

Remember; pick out sentences that describe your feelings and ideas in the PAST TWO WEEKS

Item 1
- ☐ I am sad once in a while.
- ☐ I am sad many times.
- ☐ I am sad all the time.

Item 2
- ☐ Nothing will ever work out for me
- ☐ I'm not sure if things will work out for me.
- ☐ Things will work out for me O.K.

Item 3
- ☐ I do most things O.K.
- ☐ I do many things wrong.
- ☐ I do everything wrong.

Item 4
- ☐ I have fun in many things.
- ☐ I have fun in some things.
- ☐ Nothing is fun at all.

Item 5
- ☐ I am bad all the time.
- ☐ I am bad many times.
- ☐ I am bad once in a while.

Item 6
- ☐ I think about bad things happening to me once in a while.
- ☐ I worry that bad things will happen to me
- ☐ I am sure that terrible things will happen to me.

Item 7
- ☐ I hate myself.
- ☐ I do not like myself
- ☐ I like myself

Item 8
- ☐ All bad things are my fault.
- ☐ Many bad things are my fault.
- ☐ Bad things are not usually my fault

Item 9
- ☐ I do not think about killing myself.
- ☐ I think about killing myself but I would not do it.
- ☐ I want to kill myself.

Item 10
- ☐ I feel like crying everyday.
- ☐ I feel like crying many days.
- ☐ I feel like crying once in a while.

Item 11
- ☐ Things bother me all the time.
- ☐ Things bother me many times.
- ☐ Things bother me once in a while.

Item 12
- ☐ I like being with people.
- ☐ I do not like being with people many times.
- ☐ I do not want to be with people at all.

Item 13
- ☐ I cannot make up my mind about things.
- ☐ It is hard to make up my mind about things.
- ☐ I make up my mind about things easily.

Item 14
- ☐ I look O.K.
- ☐ There are some things I don't like about how I look
- ☐ I look ugly.

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DataFax #018 Form 033 Visit # 010

Volunteer ID ☐☐☐☐

Remember; describe how you have been in the PAST TWO WEEKS . . .

Item 15
- ☐ I have to push myself all the time to do my schoolwork
- ☐ I have to push myself many times to do my schoolwork.
- ☐ Doing schoolwork is not a big problem.

Item 16
- ☐ I have trouble sleeping every night.
- ☐ I have trouble sleeping many nights.
- ☐ I sleep pretty well.

Item 17
- ☐ I am tired once in a while.
- ☐ I am tired many days.
- ☐ I am tired all the time.

Item 18
- ☐ Most days I do not feel like eating.
- ☐ Many days I do not feel like eating.
- ☐ I eat pretty well.

Item 19
- ☐ I do not worry about aches and pains.
- ☐ I worry about aches and pains many times.
- ☐ I worry about aches and pains all the times.

Item 20
- ☐ I do not feel alone.
- ☐ I feel alone many times.
- ☐ I feel alone all the times.

Item 21
- ☐ I never have fun at school.
- ☐ I have fun at school once in a while
- ☐ I have fun at school many times.

Item 22
- ☐ I have a lot of friends.
- ☐ I have some friends but I wish I had more.
- ☐ I do not have any friends.

Item 23
- ☐ My schoolwork is alright.
- ☐ My schoolwork is not as good as before.
- ☐ I do very badly in subjects I used to be good in.

Item 24
- ☐ I can never be as good as other kids.
- ☐ I can be as good as other kids if I want to.
- ☐ I am just as good as other kids.

Item 25
- ☐ Nobody really loves me.
- ☐ I am not sure if anybody loves me.
- ☐ I am sure that somebody loves me.

Item 26
- ☐ I usually do what I am told.
- ☐ I do not do what I am told most times.
- ☐ I never do what I am told.

Item 27
- ☐ I get along with people.
- ☐ I get into fights many times.
- ☐ I get into fights all the time.

Item 28
- ☐ I have no recent changes in my interest in sex.
- ☐ I am less interested in sex than I used to be.
- ☐ I am much less interested in sex now.
- ☐ I have lost interest in sex completely.

Item 29
- ☐ I get along with other people.
- ☐ I get bullied by other people.
- ☐ I bully people.

BEHAVIOR SECTION

PERINATAL HIV RESEARCH UNIT

DataFax #018 Form 101 Visit # 010

Participant ID ☐☐☐☐

1. Relationships

We would now like to ask you questions about your romantic and sexual relationships, and behaviors including condom use as well as drug and alcohol use. Some of these questions are very personal and sensitive. Please remember that your answers will be kept private. Please feel free to skip any questions that you are not comfortable to answer.

1.1 Please tell us about your sexual orientation. I consider myself to be

Heterosexual/Straight ☐ Homosexual/Gay ☐ Bi-Sexual ☐ Undecided/Don't know ☐

	Yes	No
1.2 Have you ever had a boyfriend or girlfriend?	☐	☐
1.3 Have you ever had a boyfriend or girlfriend?	☐	☐

If No to both questions 1.2 and 1.3 go to section 2

1.4 How old were you when you first had a boyfriend / girlfrriend ? ☐☐

	Zero	One	more than one
1.5 How many boyfriends/girlfriends do you currently have?	☐	☐	☐
1.6 How many boyfriends or girlfriends did you have in the PAST 12 MONTHS?	☐	☐	☐

1.7 Please indicate which of the following age groups your previous and current boyfriend(s) /girlfriend(s) fell into

16-21 yrs ☐ *22-27 yrs* ☐ *28-33 yrs* ☐ *34-40 yrs* ☐ *Over 40 yrs* ☐

In the past year, have you ever found yourself in a position where you experienced the following?

	Yes	No	Don't know	Not having sex
1.8 Your girlfriend/boyfriend has other girlfriends/boyfriends?	☐	☐	☐	
1.9 Your girlfriend/boyfriend has more control than you do in important decisions that affect your relationship?	☐	☐	☐	
1.10 When you and your girlfriend/boyfriend have an argument, your girlfriend/boyfriend gets his/her way most of the time?	☐	☐	☐	
1.11 In your relationship your girlfriend/boyfriend has more control than you do over whether you use condoms or not?	☐	☐		☐
1.12 In your relationship your girlfriend/boyfriend has more control than you do over whether you have sex or not?	☐	☐		☐

BEHAVIOR SECTION

PERINATAL HIV RESEARCH UNIT

DataFax #018 Form 103 Visit # 010

Participant ID ☐☐☐☐

For each of the following statements we would like you to tick whether you agree or disagree with the statement

	Agree	Disagree
1.13 It is more difficult to refuse sex with a partner who is older than you compared to a partner who is the same age as you	☐	☐
1.14 Condom use is a shared responsibility for both partners	☐	☐
1.15 Anal sex preserves the virginity of girls	☐	☐
1.16 It is okay to have a sugar mommy, sugar daddy, or a person with whom you have sex so that they will buy you things	☐	☐
1.17 Using condoms is a sign of not trusting your partner	☐	☐
1.18 It is against my values for me to have sex while I am still a young person	☐	☐
1.19 It is ok to pressure someone into having sex	☐	☐
1.20 It is ok to have many sexual partners	☐	☐
1.21 It is ok to have sex with my partner even though my partner does not want to	☐	☐
1.22 It is ok to have sex when I do not want to but my partner insists on having sex	☐	☐
1.23 It is ok for people your age to have sex	☐	☐
1.24 It is cool to have a sexual partner who is older than you	☐	☐
1.25 Anal sex protects from HIV	☐	☐
1.26 Sex is pleasurable	☐	☐
1.27 Condoms can make you sick	☐	☐
1.28 Oral sex is sex	☐	☐
1.29 Girls have anal sex to prevent pregnancy	☐	☐
1.30 Men prefer having dry sex	☐	☐
1.31 Government condoms can cause harm	☐	☐
1.32 It's okay to have more than one partner at once	☐	☐
1.33 The government is doing enough about HIV / AIDS	☐	☐

BEHAVIOR SECTION

PERINATAL HIV RESEARCH UNIT

DataFax #018 Form 105 Visit # 010

Participant ID ☐☐☐☐

We would like to ask about your views about your friends and sexuality

1.34 How much pressure do you get from your boyfriends/girlfriends to have sexual intercourse?

No pressure at all ☐ Not much pressure ☐ Some pressure ☐ A lot of pressure ☐

1.35 How many of your friends do you think have had sexual intercourse?

None of them ☐ Less than half of them ☐ About half of them ☐ More than half of them ☐ All of them ☐

Below is a list of some different situations regarding sexuality and condom use. For each question the answer can be No, Probably No, Probably Yes and Yes. Please answer even if you are not sexually active.

1 = No 3 = Probably Yes
2 = Probably No 4 = Yes

	1	2	3	4
1.36 Would you be able to avoid sex any time you didn't want it?	☐	☐	☐	☐
1.37 Would you be able to use a condom every time you have sexual intercourse?	☐	☐	☐	☐
1.38 Would you be able to use a condom during sex after you have been drinking or taking drugs?	☐	☐	☐	☐
1.39 Would you be able to refuse to have sex if your partner will not use a condom?	☐	☐	☐	☐
1.40 Would you be able to talk about using condoms with your partner?	☐	☐	☐	☐

1.41 How easy is it for you to get condoms if you need or want them?

Very easy ☐ Somewhat easy ☐ Somewhat difficult ☐ Difficult ☐

1.42 If you wanted to get condoms, where would you go? (Tick all that apply)

Pharmacy/Chemist ☐ Petrol Station ☐ Supermarket, shops, spaza shop ☐

Clinic, hospital, day clinic, mobile clinic, doctor ☐ Parent ☐ Another Adult ☐

Friend ☐ School ☐ Tavern, bar ☐ Other sources (specify)_____

1.43 If you are sexually active think about the times you had sex (vaginal, oral and anal sex). How often would you say you used a condom during the past six months?

Always ☐ Sometimes ☐ Never ☐ Not sexually active ☐

_____
Staff Initials / Date

BEHAVIOR SECTION

PERINATAL HIV RESEARCH UNIT

DataFax #018 Form 107 Visit # 010

Participant ID ☐☐☐☐

2. Sexual Behaviour

We are now going to ask you some questions about your current and past sexual experiences, please feel free to skip questions that you are not comfortable to answer. Remember your answers are confidential.

	Yes	No
2.1 Have you ever had vaginal sex with someone? (That is to say when the penis was in the vagina)	☐	☐ (If No skip the next question)
2.2 How old were you when you first did this?	☐☐	
2.3 Have you ever had oral sex with a man or a woman? (That is to say when either you or your partner's mouth was on the penis/vagina)	☐	☐ (If No skip the next question)
2.4 How old were you when you first did this?	☐☐	
2.5 Have you ever had anal sex with someone? (That is to say when the penis was in the anus)	☐	☐ (If No skip the next question)
2.6 How old were you when you first did this?	☐☐	

If you answered no to all of the above, skip to question 2.26

	Males	Females
2.7 How many males/females have you had sexual intercourse with in your WHOLE LIFETIME? (Includes vaginal, anal, oral sex)	☐☐	☐☐
2.8 How many DIFFERENT males/females have you had sexual intercourse with in THE LAST 12 MONTHS? (Includes vaginal, anal, oral sex)	☐☐	☐☐

Looking back in the past 6 months, tell us about the times you had sexual intercourse.

	Yes	No	N/A
2.9 Did you have vaginal sex where the penis enters the vagina in the past six months?	☐	☐ If No go to question 2.14	
2.10 In the past six months, with how many different males did you have vaginal sex?	☐☐		☐
2.11 In the past six months, with how many different females did you have vaginal sex?	☐☐		☐
2.12 In the past six months how many total times did you have vaginal sex?	☐☐		
2.13 Of the times you had vaginal sex in the past six months, how many times was a condom used?	☐☐		

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	Yes	No	
2.14 Did you have oral sex, when either you or your partner's mouth was on the penis/ vagina in the past six months?	☐	☐	If No go to question 2.19
2.15 In the past six months, with how many different males did you have oral sex?	☐☐		N/A ☐
2.16 In the past six months, with how many different females did you have oral sex?	☐☐		N/A ☐
2.17 In the past six months how many total times did you have oral sex?	☐☐		
2.18 Of the times you had oral sex in the past six months, how many times was a condom used?	☐☐		
	Yes	No	
2.19 Did you have anal sex, where the penis was in the anus in the past six months?	☐	☐	If No go to question 2.24
2.20 In the past six months, with how many different males did you have anal sex?	☐☐		N/A ☐
2.21 In the past six months, with how many different females did you have anal sex?	☐☐		N/A ☐
2.22 In the past six months how many total times did you have anal sex?	☐☐		
2.23 Of the times you had anal sex in the past six months, how many times was a condom used?	☐☐		
	Yes	No	
2.24 Did you or your partner use a condom the last time you had sex?	☐	☐	If Yes, skip the next question

2.25 If you did not use a condom the last time you had sex with your sexual partner, what was the one main reason that you you did not use a condom?

- Don't know what a condom is/ did not know at the time ☐
- Neither I nor my partner had a condom with us at the time ☐
- Condoms are too costly ☐
- Wanted to become pregnant ☐
- Already pregnant ☐
- I trust that my partner does not have an STI or HIV ☐
- I was under the influence of drugs or alcohol ☐
- I didn't think I would get a disease ☐
- We used another form of birth control ☐
- Partner did not want to use a condom ☐
- I don't like the way condoms feel ☐
- I couldn't be bothered ☐
- I didn't think about it ☐
- I was forced to have sex ☐
- Did not want to ☐
- Other (Specify)..... _____

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Now we are going to ask you a few questions related to possible sexual experiences.

	Yes	No
2.26 Have you ever had the opportunity to have sex and refused?	☐	☐
2.27 Have you ever been hit, slapped or physically hurt on purpose by a boyfriend or girlfriend?	☐	☐
2.28 Have you ever had sexual intercourse because someone USED physical force to make you have sex with him or her?	☐	☐
2.29 Have you ever had sexual intercourse because someone THREATENED you to have sex with him or her?	☐	☐
2.30 Have you ever physically forced someone to have sexual intercourse with you?	☐	☐
2.31 Did you ever have sex with someone so that they would give you material or any other kind of support, such as money, presents, alcohol, food, clothes, better grades, transportation etc. in exchange for sex?	☐	☐
2.32 Have you ever given someone material things such as money, presents, alcohol, food, clothes, transportation etc in exchange for sex?	☐	☐

3. Family Planning

	Yes	No
3.1 Have you ever been to a family planning clinic?	☐	☐

3.2 What family planning methods are you using?

Condoms ☐ The Pill ☐ Injection ☐ None ☐ Other (Specify)_____

	Yes	No
3.3 Have you ever been pregnant/got someone pregnant?	☐	☐

(If No, skip the next question)

3.4 What was the outcome of the pregnancy?

Had a baby ☐ Terminated ☐ Adopted ☐ Don't know ☐

	Yes	No	Don't know
3.5 Do you think you've ever had a Sexually Transmitted Infection (STI)? (smelly discharge, sores, blister ulcers on your vagina/penis)	☐	☐	☐

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4. Substance use

Now we would like to ask you some questions about drug and alcohol use. Some questions that we ask might be uncomfortable. Please remember that your answers will not be shared with others. If there is a question that you really do not feel comfortable answering please feel free to skip that question.

	Yes	*No*
4.1 Have you used tobacco, such as cigarettes, in the last six months?	☐	☐
4.2 Have you ever had an alcoholic drink OTHER than for a religious ceremony or just to sample or taste?	☐	☐
4.3 Have you been using alcohol in the last six months?	☐	☐

(If No go to question 4.8

4.4 Have you been drunk in the last six months, such as where you passed out or did things you did not remember? ☐ ☐

4.5 During the PAST SIX MONTHS, how often did you drink alcohol?

Over weekends only ☐ During the week ☐

Over weekends and during the week ☐ Once a month ☐

4.6 Where did you get the alcohol from?

Shebeen ☐ Older friend ☐ Friend my own age ☐ At parties ☐

Boyfriend / Girlfriend ☐ Sugar mommy / Sugar daddy ☐

At bottle store ☐ I bought it myself ☐ From my parents ☐ Stole it ☐

4.7 If you ticked "I bought it myself", where did you get the money?

Parents ☐ Friends ☐ Pocket money ☐ Other _____

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	Yes	No
4.8 Have you ever had sexual intercourse when you were under the influence of alcohol?	☐	☐
4.9 Have you ever, even once, used any drug just to get high?	☐	☐
4.10 In the past six months, have you used any drug just to get high?	☐	☐
4.11 Did you ever think someone put something in your drink (or spiked your drink)/Have you ever put something in someone's drink?	☐	☐
4.12 Have you ever injected any drug?	☐	☐

4.13 Have you used any of the following in the last six months?

1 = Not once in the past month
2 = Once a month
3 = Once a week
4 = Several times per week
5 = Daily

	1	2	3	4	5
Marijuana/Pot/Dagga	☐	☐	☐	☐	☐
Mandrax/Buttons	☐	☐	☐	☐	☐
Glue	☐	☐	☐	☐	☐
Heroin	☐	☐	☐	☐	☐
Cocaine/Coke	☐	☐	☐	☐	☐
Crack/Rocks	☐	☐	☐	☐	☐
Petrol/Benzine	☐	☐	☐	☐	☐
Ecstasy/Pills	☐	☐	☐	☐	☐
LSD/Acid	☐	☐	☐	☐	☐
Other (Specify) _____	☐	☐	☐	☐	☐

4.14 Where were you when you used any of these drugs? (Tick all that apply)

Home ☐ School ☐ Party ☐ Bar ☐ Other (Specify)_____

	Yes	No
4.15 Have ever used drugs from the pharmacy to get high, such as cough mixture?	☐	☐

5. Adolescent related health issues

	Yes	No
5.1 I have acne	☐	☐
5.2 I feel I am fat	☐	☐
5.3 I feel I am too thin	☐	☐
5.4 I feel I am too tall	☐	☐
5.5 I feel I am too short	☐	☐

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Parent Adolescent Communication

In the past 6 months, how often have you and your parent(s) / guardian talked about the following things:

	Never	*rarely*	*sometimes*	*often*
1. Sex?	☐	☐	☐	☐
2. How to use condoms?	☐	☐	☐	☐
3. Sexual transmitted infections (STIs)?	☐	☐	☐	☐
4. HIV/AIDS?	☐	☐	☐	☐
5. Pregnancy / getting someone pregnant?	☐	☐	☐	☐
6. Puberty? (Menstruation, voice changes, wet dreams)	☐	☐	☐	☐
7. Circumcision?	☐	☐	☐	☐

	Me	*Parent / Guardian*
8. Who would you say generally initiated or started conversations about the above topics?	☐	☐

	Not at all	*Somewhat*	*A great deal*
9. How helpful were these conversations?	☐	☐	☐

10. Think about people other than your parent(s) / guardian. When you need / want information about sex, how helpful is each of the following people?

	Not at all	*Somewhat*	*A great deal*
Group of close friends	☐	☐	☐
Peers your age	☐	☐	☐
Boyfriend / girlfriend	☐	☐	☐
Father	☐	☐	☐
Mother	☐	☐	☐
Grandfather	☐	☐	☐
Grandmother	☐	☐	☐

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Parent Adolescent Communication

	Not at all	*Somewhat*	*A great deal*
Sisters	☐	☐	☐
Brothers	☐	☐	☐
Uncle	☐	☐	☐
Aunt	☐	☐	☐
Principal/ Deputy principal	☐	☐	☐
Teacher	☐	☐	☐
Life orientation teacher	☐	☐	☐
Somebody from church	☐	☐	☐
Other people, specify _____	☐	☐	☐

11. Think about people other than your parent(s) / guardian. When you need / want information about HIV/AIDS, how helpful is each of the following people?

	Not at all	*Somewhat*	*A great deal*
Group of close friends	☐	☐	☐
Peers your age	☐	☐	☐
Boyfriend/girlfriend	☐	☐	☐
Father	☐	☐	☐
Mother	☐	☐	☐
Grandfather	☐	☐	☐
Grandmother	☐	☐	☐
Sisters	☐	☐	☐
Brothers	☐	☐	☐
Uncle	☐	☐	☐
Aunt	☐	☐	☐
Principal / Deputy principal	☐	☐	☐
Teacher	☐	☐	☐
Life orientation teacher	☐	☐	☐
Somebody from church	☐	☐	☐
Other people, specify _____	☐	☐	☐

Appendix C: Phase 2 Socio-behavioral Risk Assessment

DEMOGRAPHIC INFORMATION

Good day, thank you for agreeing to take part in the study. We would like to ask you quite a few questions about yourself. Your answers are completely confidential; this means that we will not discuss anything you tell us with anyone outside of this study. Please answer each question with the most correct response. As you will see, many of these questions are very personal. It is very important that you answer every question honestly. In fact, it's better not to answer a question at all than to tell us something that is not correct or true.	
1. Age	_____ *write years*
2. Gender	1= MALE 2 = FEMALE
3. Do you attend school? IF NOT IN SCHOOL, WHY?	1= YES 2= NO _____
4. What grade are you in?	_____ *write grade*
5. How much do you like school?	1= Do not like it at all 2= Do not like it much 3= Like it 4= Like it very much
6. Is it important for you to get good marks at school? WHY?	1= YES 2= NO _____
7. How do you get to and from school everyday?	1= Walk to school 2= Public transport 3= Special transport 4= Parents drive me Other, specify _____
8. If you walk, who do you walk with to school?	1= Friends 2= People I go to school with 3= Alone Other, specify_____

Appendix C: Phase 2 Socio-behavioral Risk Assessment (continued)

SAFETY

Good day, thank you for agreeing to take part in the study. We would like to ask you quite a few questions about yourself. Your answers are completely confidential; this means that we will not discuss anything you tell us with anyone outside of this study. Please answer each question with the most correct response. As you will see, many of these questions are very personal. It is very important that you answer every question honestly. In fact, it's better not to answer a question at all than to tell us something that is not correct or true.	
Now we would like to ask you some questions about safety. By safety we mean feeling free and out of danger.	
9. How safe do you feel at home?	1= Not at all safe 2= Somewhat safe 3= Very safe
10. How safe do you feel with your friends?	1= Not at all safe 2= Somewhat safe 3= Very safe
11. How safe do you feel at school?	1= Not at all safe 2= Somewhat safe 3= Very safe
12. Is it safe for you to go to the toilets at school alone? WHY?	1= YES 2= NO _____
13. How important is religion in your everyday life?	**1= Most important** **2= Very important** **3= Somewhat important** 4= Not important at all
14. Aside from weddings and funerals, how often do you attend religious services (church, temple, mosque, etc…)?	**1= More than once a week** **2= Once a week** **3= 1-2 times a month** **4= A few times a year** 5= Never
15. How many people live in your household?	_____ *Write number*

16. Do you have a parent staying with and taking care of you at home?	1= YES 2= NO
17. **IF YES,** Who is the parent who stays with you and takes care of you at home?	1= FATHER 2= MOTHER 3= BOTH
18. IF NO, do you have a guardian (a person older than 18) who stays with you and takes care of you at home? IF YES, WHO IS THE GUARDIAN?	1= YES 2= NO _____ write who
19. Is your father alive?	1= YES 2= NO 3= Don't Know
20. IF YES, is your father employed?	1= YES 2= NO
21. Is your mother alive?	1= YES 2= NO 3= Don't Know
22. IF YES, is your mother employed?	1= YES 2= NO
23. What kind of a house do you live in?	1= Brick house owned by family 2= Brick house that family is renting 3= Flat owned by family 4= Flat that family is renting 5= RDP house Hostel (Brick) 6= Shack - Informal settlement 7= Shack - Backyard 8= Other, specify _____
24. Do you often have electricity in your home?	1= YES 2= NO
25. Do you share your bedroom with someone?	1= YES 2= NO
26. Do you share your bed with someone?	1= YES 2= NO
27. Does someone look after you after school?	1= YES 2= NO

28. How often are you left alone at home?	1= Always 2= Sometimes 3= Never
29. Are you sent out alone for errands (e.g. like going to the shop)?	1= YES 2= NO
30. Do your parents/guardians know where you are when you go out at night?	1= Always 2= Sometimes 3= Never 4= I do not go out at night
31. Do your parents/guardian know who you are with when you go out at night?	1= Always 2= Sometimes 3= Never 4= I do not go out at night
32. How strict are the rules in your home?	1= Not at all strict 2= Not very strict 3= Strict 4= Very strict
33. Do you have to be home by a certain time in the evenings?	1= YES 2= NO
34. In the last TWO MONTHS have you spent the night outside your home?	1= YES 2= NO
35. IF YES, how many nights did you spend outside your home?	1= One night 2= Less than one week 3= One week 4= Two weeks 5= One month 6= More than one month
36. What was the MAIN reason for spending the night/s outside of your home the LAST TIME you spent the night/s outside of your home?	1= Went to visit family 2= Went to visit friends 3= Went to visit my boyfriend/girlfriend 4= Went to a party 5= Went to a club 6= Other (specify) _____

Appendix C: Phase 2 Socio-behavioral Risk Assessment (continued)

DEPRESSION

Below are some feelings and ideas listed in groups of three sentences. From each group pick ONE sentence that describes you best for the past two weeks. After you pick a sentence, then go to the next group.
There is no right or wrong answer. Just pick the sentence that best describes the way you have been recently. Put the mark in the box next to the sentence that you pick.
Remember; pick out sentences that describe your feelings and ideas in the Past TWO WEEKS.

Item 1
☐ I am sad once in a while.
☐ I am sad many times.
☐ I am sad all the time.

Item 2
☐ Nothing will ever work out for me.
☐ I am not sure if things will work out for me.
☐ Things will work out for me O.K.

Item 3
☐ I do most things O.K.
☐ I do many things wrong.
☐ I do everything wrong.

Item 4
☐ I have fun in many things.
☐ I have fun some things.
☐ Nothing is fun at all.

Item 5
☐ I am bad all the time.
☐ I am bad many times.
☐ I am bad once in a while.

Item 6
☐ I think about bad things happening to me once in a while.
☐ I worry that bad things will happen to me.
☐ I am sure that terrible things will happen to me.

Item 7
☐ I hate myself.
☐ I do not like myself.
☐ I like myself.

Item 8
☐ All bad things are my fault.
☐ Many bad things are my fault.
☐ Bad things are not usually my fault.

Item 9
☐ I do not think about killing myself.
☐ I think about killing myself but I would not do it.
☐ I want to kill myself.

Item 10
☐ I feel like crying everyday.
☐ I feel like crying many days.
☐ I feel like crying once in a while.

Item 11
☐ Things bother me all the time.
☐ Things bother me many times.
☐ Things bother me once in a while.

Item 12
☐ I like being with people.
☐ I do not like being with people many times.
☐ I do not want to be with people at all.

Item 13
☐ I cannot make up my mind about things.
☐ It is hard to make up my mind about things.
☐ I make up my mind about things easily

Item 14
☐ I look O.K.
☐ There are some things I don't like about how I look.
☐ I look ugly.

Item 15
☐ I have to push myself all the time to do my schoolwork.
☐ I have to push myself many times to do my schoolwork.
☐ Doing schoolwork is not a big problem.

Item 16
☐ I have trouble sleeping every night.
☐ I have trouble sleeping many nights.
☐ I sleep pretty well.

Item 17
☐ I am tired once in a while.
☐ I am tired many days.
☐ I am tired all the time.

Item 18
☐ Most days I do not feel like eating.
☐ Many days I do not feel like eating.
☐ I eat pretty well.

Item 19
☐ I do not worry about aches and pains.
☐ I worry about aches and pains many times.
☐ I worry about aches and pains all the time.

Item 20
☐ I do not feel alone.
☐ I feel alone many times.
☐ I feel alone all the time.

Item 21
☐ I never have fun at school.
☐ I have fun at school once in a while.
☐ I have fun at school many times.

Item 22
☐ I have a lot of friends.
☐ I have some friends but I wish I had more.
☐ I do not have any friends.

Item 23
☐ My schoolwork is alright.
☐ My schoolwork is not as good as before.
☐ I do very badly in subjects I used to be good in.

Item 24
☐ I can never be as good as other kids.
☐ I can be as good as other kids if I want to.
☐ I am just as good as other kids.

Item 25
☐ Nobody really loves me.
☐ I am not sure if anybody loves me.
☐ I am sure that somebody loves me.

Item 26
☐ I usually do what I am told.
☐ I do not do what I am told most times.
☐ I never do what I am told.

Item 27
☐ I get along with people.
☐ I get into fights many times.
☐ I get into fights all the time.

Item 28
☐ I have no recent changes in my interest in sex
☐ I am less interested in sex than I used to be.
☐ I am much less interested in sex now.
☐ I have lost interest in sex completely.

Item 29
☐ I get along with other people
☐ I get bullied by other people
☐ I bully people.

Appendix C: Phase 2 Socio-behavioral Risk Assessment (continued)

BEHAVIOR SECTION

1. RELATIONSHIPS

I am now going to ask you some sensitive questions. REMEMBER, anything we discuss will be completely confidential.	
1.1. Do you currently have a boyfriend/girlfriend?	1= YES 2= NO SKIP TO Q 1.4
1.2. How many boyfriends/girlfriends do you currently have?	1= One 2= More than one _____ *write number*
1.3. Do you think your boyfriend/girlfriend has other girlfriends/boyfriends?	1= YES 2= NO 3= Don't know
1.4. Have you ever had sex (including oral, anal, vaginal sex) in your whole lifetime?	1= YES 2= NO
1.5. IF NO, what are the reasons you have not had sex? DO NOT READ OUT OPTIONS	(MARK ALL THAT APPLY) 1= I am waiting until I get married 2= I do not have a boyfriend/girlfriend 3= I am waiting until I am older 4= I have not had the opportunity 5= I am worried about getting HIV/AIDS 6= I am worried about getting pregnant 7= Other (specify)_____
1.6. In the next year how likely do you think it is that you will have sex?	1= Very unlikely 2= Unlikely 3= Likely 4= Very likely
1.7. How much pressure do you get from your boyfriend/girlfriend to have sex?	1= No pressure at all 2= Some pressure 3= A lot of pressure 4= Not much pressure
1.8. How many of your friends do you think have had sex?	1= None of them 2= Less than half of them 3= About half of them 4= More than half of them 5= All of them
1.9. How much pressure do you get from your friends to have sex?	1= No pressure at all 2= Some pressure 3= A lot of pressure 4= Not much pressure

Appendix C: Phase 2 Socio-behavioral Risk Assessment (continued)

2. SELF-EFFICACY, INTENTIONS & BELIEFS

Below is a list of different situations regarding sexuality and condom use. For each question the answers can be No, Probably No, Probably Yes and Yes	
2.1. Would you be able to avoid sex any time you didn't want it?	1= No 2= Probably No 3= Probably Yes 4= Yes
2.2. Would you be able to talk to your partner about his/her previous sexual activities	1= No 2= Probably No 3= Probably Yes 4= Yes
2.3. Would you be able to use a condom every time you have sex?	1= No 2= Probably No 3= Probably Yes 4= Yes
2.4. Would you be able to use a condom during sex after you have been drinking or taking drugs?	1= No 2= Probably No 3= Probably Yes 4= Yes
2.5. Would you be able to refuse to have sex if your partner will not use a condom?	1= No 2= Probably No 3= Probably Yes 4= Yes
2.6. Would you be able to talk about using condoms with your partner?	1= No 2= Probably No 3= Probably Yes 4= Yes
For each of the following statements, we would like you to tell us whether you agree or disagree...	
2.7. It is more difficult to refuse sex with a partner who is older than you compared to a partner who is the same age as you	1= Agree 2= Disagree
2.8. Condom use is a shared responsibility for both partners	1= Agree 2= Disagree
2.9. It is cool to have a sexual partner who is older than you	1= Agree 2= Disagree
2.10. It is okay to have a sugar mommy, sugar daddy, or a person with whom you have sex so that they will buy you things	1= Agree 2= Disagree
2.11. Using condoms is a sign of not trusting your partner	1= Agree 2= Disagree
2.12. It is against my values for me to have sex while I am still a young person	1= Agree 2= Disagree

2.13. It is ok to pressure someone into having sex	1= Agree 2= Disagree
2.14. It is ok to have many sexual partners	1= Agree 2= Disagree
2.15. It is ok to have sex with my partner even though my partner does not want to	1= Agree 2= Disagree
2.16. It is ok to have sex when I do not want to but my partner insists on having sex	1= Agree 2= Disagree
2.17. It is ok for people your age to have sex	1= Agree 2= Disagree
Please answer the following questions for what you intend to do in the next month. In the next month I intend to:	
2.18. Talk to my partner to use condoms every time we have sex.	1= not at all likely 5 = extremely likely
2.19. Talk to my partner about getting tested for HIV	1= not at all likely 5 = extremely likely
2.20. Get tested together with my partner	1= not at all likely 5 = extremely likely
2.21. use condoms every time I have sex	1= not at all likely 5 = extremely likely
2.22. always have condoms handy	1= not at all likely 5 = extremely likely
2.23. Avoid sexual activities/ to remain/ become sexually abstinent	1= not at all likely 5 = extremely likely
2.24. Go to family planning before I have sex	1= not at all likely 5 = extremely likely
2.25. Avoid drinking alcohol/using drugs when I have sex	1= not at all likely 5 = extremely likely
2.26. Stop/ reduce drinking alcohol	1= not at all likely 5 = extremely likely

Appendix C: Phase 2 Socio-behavioral Risk Assessment (continued)

3. SEXUAL BEHAVIOR

We are now going to ask you some questions about your current sexual experiences, please feel free to skip questions that you are not comfortable to answer. Remember your answers are confidential.			
3.1. **In the past 2 months,** have you had sex with anyone?	1= YES 2= NO		
3.2. Think about all the people you have had sex with **in the past 2 months**. How many different people have you had sex with? Include all males and females with whom you have had vaginal, anal or oral sex, with or without a condom, and with or without ejaculation.	_____ write number of people you had sex with 1= don't know 2= refuse to answer		
3.3. How many of these people were males?	_____ write number		
3.4. How many of these people were females?	_____ write number		
3.5. Of the different people you told me that you had sex with **in the past 2 months**, how many were a: a. Main partner, that is main boyfriend or girlfriend? b. Casual partner, that is someone who is not a main partner? c. One nightstand/once-off sex?	_____ write number _____ write number _____ write number		
3.6. **In the past 2 months,** what types of activities have you had with your partner/s? *MARK A RESPONSE FOR EACH PARTNER TYPE.*	**P1**	**P2**	**3/more partners**
Have you had... a. Vaginal sex when a condom was used some of the time?	1= YES 2= NO	1= YES 2= NO	1= YES 2= NO
b. Vaginal sex when a condom was never used?	1= YES 2= NO	1= YES 2= NO	1= YES 2= NO
c. Vaginal sex when a condom was used every time?	1= YES 2= NO	1= YES 2= NO	1= YES 2= NO
d. Anal sex when a condom was	1= YES 2= NO	1= YES 2= NO	1= YES 2= NO

used some of the time?	1= YES 2= NO	1= YES 2= NO	1= YES 2= NO
e. Anal sex when a condom was never used?	1= YES 2= NO	1= YES 2= NO	1= YES 2= NO
f. Anal sex when a condom was used every time?	1= YES 2= NO	1= YES 2= NO	1= YES 2= NO
g. Oral sex when a condom was used some of the time?	1= YES 2= NO	1= YES 2= NO	1= YES 2= NO
h. Oral sex when a condom was never used?	1= YES 2= NO	1= YES 2= NO	1= YES 2= NO
i. Oral sex when a condom was used every time?			

3.7. Did you know if any of your partners were HIV positive?	1= YES SKIP TO Q3.9 2= NO		
3.8. Did you know if any of your partners were HIV negative?	1= YES 2= NO		
3.9. Do you think anyone of your partners were HIV infected?	1= YES 2= NO		
3.10. Did you go with your partner/s for HIV testing in the **past 2 months**?	1= YES 2= NO		
3.11. Thinking about the person/s you had sex with, is this person:	P1	P2	3/more partner
Same age	1= YES 2= NO	1=YES 2= NO	1= YES 2= NO
Older	1= YES 2= NO	1=YES 2= NO	1= YES 2= NO
Younger	1= YES 2= NO	1=YES 2= NO	1= YES 2= NO
How many years older than you? How many years younger than you?	_____ *write years*		

	_____ *write years*
3.12. **In the past 2 months,** have you had sex because you felt a. down/depressed b. lonely c. too excited/happy	1= YES 2= NO
	1= YES 2= NO
	1= YES 2= NO
	1= YES 2= NO
	1= YES 2= NO
	1= YES 2= NO
	1= Money 2= Alcohol/drugs 3= Food 4= Clothes 5= Better grades 6= Transportation 7= Housing/place to sleep 8= Cosmetics (perfume, make up, hair etc…) 9= Other specify _____
	1= At Home 2= At a Party 3= In the car 4= At the park 5= At the club 6= Toilets at the mall 7= At school 8= Other, specify _____

3.13. **In the past 2 months**, have you had sex with **more than one person at the same time** (group sex)?	1= YES 2= NO
3.14. **In the past 2 months,** have you had sex with **more than one person in the same day/night** (not at the same time)?	1= YES 2= NO
3.15. **In the past 2 months,** have you ever had sex with your partner/s so that they would give you material or any other kind of support, such as money, presents, alcohol, food, clothes, better grades, transportation etc… in exchange?	1= YES 2= NO
3.16. IF YES, what type of support did they give you in exchange for sex?	1= Money 2= Alcohol/drugs 3= Food 4= Clothes 5= Better grades 6= Transportation 7= Housing/place to sleep 8= Cosmetics (perfume, make up, hair etc…) 9= Other specify _____
3.17. Where do you usually have sex?	1= At Home 2= At a Party 3= In the car 4= At the park 5= At the club 6= Toilets at the mall 7= At school 8= Other, specify _____
3.18. Did you use a condom **the first time you had sex**?	1= YES 2= NO
3.19. **The last time you had sex**, did you use a condom?	1= YES 2= NO
3.20. **If you did not use a condom the last time you had sex,** what was the reason/s that you did not use a condom? PLEASE TICK ALL THAT APPLY (DO NOT READ OUT OPTIONS)	1= Don't know what a condom is / did not know 2= Neither I nor my partner had a condom with us at the time 3= Condoms are too costly 4= Wanted to become pregnant/Already pregnant 5= I trust that my partner does not have an STI or HIV

	6= I was under the influence of drugs or alcohol 7= I didn't think I would get a disease 8= We used another form of birth control 9= Partner did not want to use a condom 10= I don't like the way condoms feel 11= I couldn't be bothered 12= I didn't think about it 13= I was forced to have sex 14= Did not want to 15= Other, specify _____
3.21. With which partner/s do you find it most difficult to negotiate condom use?	1= Main partner 2= Casual partner 3= One nightstand/ once-off sex 4= Other, specify _____
3.22. Do you discuss sexual practices that will prevent pregnancy, HIV and STI with your partner/s?	1= YES 2= NO
3.23. If yes, what subjects have you discussed with your partner/s?	1= Condom use 2= Non penetrative sex (e.g. mutual masturbation) 3= Circumcision 4= Having other sexual partners 5= Reducing number of sexual encounters 6= HIV testing 7= Other, specify _____

Appendix C: Phase 2 Socio-behavioral Risk Assessment (continued)

4. SEXUALLY TRANSMITTED DISEASES AND PREGNANCY

I would now like to ask you some questions about	
4.1. **In the past 2 months**, have you been diagnosed with a sexually transmitted infection?	1= YES 2= NO 3= NOT SEXUALLY ACTIVE
ASK GIRLS ONLY 4.2. During the **past 2 months**, have you had: Increased, smelly vaginal discharge?	1= YES 2= NO
Pain when urinating?	1= YES 2= NO
Pain when having sex?	1= YES 2= NO
Genital or rectal sores, blisters or ulcers?	1= YES 2= NO
4.3. Are you currently using any method of pregnancy prevention or family planning?	1= YES 2= NO
4.4. IF YES, what method/s are you currently using?	1= Counting days/Safe period or Withdrawal 2= Hormonal e.g. the pill/ injection 3= Male/Female condom 4= traditional methods e.g. thigh sex, herbs etc. 5= Other (specify) _____
4.5. Have you ever been pregnant?	1= YES 2= NO
4.6. What was the outcome of the pregnancy?	1= Had a baby 2= Terminated 3= Miscarried
4.7. How old were you when you first became pregnant?	_____ Years
ASK BOYS ONLY 4.8. Is your penis circumcised that is, has the foreskin on your penis been removed?	1= YES 2= NO

4.8. IF YES, did you have	1= medical circumcision 2= traditional circumcision 3= both
4.9. During the last 2 months, have you had sores or a painful discharge from your penis?	1= YES 2= NO
4.10. In your relationships, how many times have you made a female partner pregnant?	_____ write number
4.11. How old were you when you first made a woman pregnant?	_____Write in age when your partner fell pregnant

Appendix C: Phase 2 Socio-behavioral Risk Assessment (continued)

SEXUAL TRAUMA

4.12. Has anyone touched you or tried to touch you in a sexual way that made you feel uncomfortable? a. how old were you when it first happened to you? b. who did this to you?	1= YES 2= NO _____ *write years* _____ *write years*
4.13. Has anyone made you touch their genitals or actually touched your genitals masturbated in front of you or try to have oral sex with you AGAINST YOUR WILL? a. how old were you when it first happened to you? b. Who did this to you?	1= YES 2= NO _____ *write years* _____ *write years*
4.14. Did you ever have sexual intercourse with anyone because they USED physical force (e.g. hitting, holding you down, or using a weapon) to make you have sex with them? a. how old were you when it first happened to you? b. who did this to you?	1= YES 2= NO _____ *write years* _____ *write years*

Appendix C: Phase 2 Socio-behavioral Risk Assessment (continued)

5. ALCOHOL AND DRUG USE

I would now like to ask you some questions about drug and alcohol use…..	
5.1. During the PAST 2 MONTHS, how often did you drink alcohol?	1= I do not drink alcohol 2= Daily 3= Several times per week 4= Once a week 5= Once a month
5.2. Have you been drunk in the PAST 2 MONTHS?	1= YES 2= NO
5.3. Where do you usually hang out when you drink alcohol? (TICK ALL THAT APPLY)	1= Home 2= Party 3= Shebeen 4= Club 5= Bar 6= Other (Specify) _____
5.4. Have you ever had sexual intercourse when you were under the influence of alcohol or drugs?	1= YES 2= NO 3= Not sexually active
5.5. Have you ever had sexual intercourse when your partner was under the influence of alcohol or drugs?	1= YES 2= NO
5.6. Have you ever used any drug to make you feel high?	1= YES 2= NO
5.7. During the PAST 2 MONTHS, how often did you take drugs?	1= Not once in the past month 2= Daily 3= Several times per week 4= Once a week 5= Once a month
5.8. Where were you when you used drugs? (TICK ALL THAT APPLY)	1= Home 2= School 3= Party 4= Bar 5= Other (Specify) _____

Appendix C: Phase 2 Socio-behavioral Risk Assessment (continued)

Parent Adolescent Communication Scale (PACS)

In the past 6 months, how often have you and your parent(s) / guardian talked about the following things:	
Sex?	1= Never 2= rarely 3= sometimes 4= often
How to use condoms?	1= Never 2= rarely 3= sometimes 4= often
Sexual transmitted infections (STIs)?	1= Never 2= rarely 3= sometimes 4= often
HIV/AIDS?	1= Never 2= rarely 3= sometimes 4= often
Pregnancy / getting someone pregnant?	1= Never 2= rarely 3= sometimes 4= often
Puberty? (Menstruation, voice changes, wet dreams)	1= Never 2= rarely 3= sometimes 4= often
Circumcision?	1= Never 2= rarely 3= sometimes 4= often
Alcohol and drug use	1= Never 2= rarely 3= sometimes 4= often

Appendix C: Phase 2 Socio-behavioral Risk Assessment (continued)

EXPOSURE TO STRESSORS

This is a survey of events and things that might have happened to you and your family. Below is a list of statements, please indicate if you have ever experienced the following events by responding Yes or No. Have you ever experienced the following?	**Yes**	**No**
1. Been separated from your MOM or the person who looks after you for more than three months at a time? (e.g. live with another relative or in foster care)		
2. Had your parents split up or separate?		
3. Parents argued frequently or more than usual?		
4. Changed school or moved to a new home?		
5. Had your parent or guardian lose his/her job?		
6. Lost your home or had no home?		
6. Had a family member or someone close to you with an alcohol or drug problem?		
7. Had a family member or someone close to you who had HIV or AIDS?		
8. Had a family member or someone close to you who died of HIV or AIDS?		
9. Had a family member or someone close to you who died?		
10. Found out that a family or someone close to you was very sick or had a bad injury?		
11. Found out that you were very sick or had a bad injury?		
12. Experienced discrimination based on your race or ethnicity?		
13. Your family struggled with money that is, struggled to make ends meet		
14. Other_____		

Appendix D: Phase 2 Interview Guide

In-depth Interview Guide

What do you think about counselling and testing in general?
What do you think are the reasons boys and girls like you go for counselling and testing?
What concerns and circumstances bring young boys and girls to services that offer counselling and testing?
Tell me how you felt about the whole counselling intervention.
How did you feel about the length of the counselling intervention?
How did you feel about the physical environment of the counselling session?
Tell me how you felt about your interaction with the counselor.
What has been your experience of being in this counselling session?
What did you like about this counselling session?
What did you not like about this counselling session?
What elements of counselling are most important to you?

Appendix D: Phase 2 Interview Guide (continued)

Follow-Up Questions For Counselor After Counseling Session

Participant No.:
Date:

Extent covered	**Not at all**	**Partially**	**Fully**
Rapport/Establish Introduction			
HIV Information Session			
Enhanced Self-Perception of Risk			
Review Previous Risk Reduction Experiences			
Negotiate Risk Reduction Plan			
Condom Skills Demonstration and Practice			
Identify Sources of Support and Provide Additional			
Referrals			

Appendix D: Phase 2 Interview Guide (continued)

Adolescent Evaluation Tool

Thank you for participating in the intervention. This is an assessment form, a tool to assist the study coordinators to understand your experience in participating in this intervention. We would like you to answer the following questions:

1. How helpful did you find this session?
   A) Very Unhelpful
   B) Very helpful
   C) Somewhat helpful
   D) Very helpful

2. How comfortable did you feel with the counselor during the session?
   A) Very uncomfortable
   B) Somewhat uncomfortable
   C) Somewhat comfortable
   D) Very comfortable

3. How did we address issues for you, and adolescents like you, during the session?
   A) Not at all
   B) Somewhat
   C) Very much
   D) Completely

4. By the end of the session, how comfortable were you talking about HIV & risk reduction? (For example, talking about sex, drawing up a risk reduction plan).

   A) Very uncomfortable
   B) Somewhat uncomfortable
   C) Somewhat comfortable
   D) Very comfortable

5. If we did this session with other adolescents like you:
A. What do you think we should keep the same?

_____
_____
_____

B. What do you think we should change?

_____
_____
_____

C. Did the counselor understand what you were saying?

_____
_____
_____

D. What did you learn in the counseling session?

_____
_____
_____

E. What did you learn about yourself?

_____
_____
_____

F. Was there anything that made you feel uncomfortable during the session?

_____
_____
_____

G. Was there anything that made you feel comfortable during the session?

_____
_____
_____

H. Is there anything that was new for you to hear during counseling?

_____
_____
_____

I. If you were given another opportunity would you attend a session like this again? Please elaborate

_____
_____
_____

Appendix E: Phase 1a: Letter of Approval for Phase 1a, Human Research Ethics Committee (Medical), University of the Witwatersrand

UNIVERSITY OF THE WITWATERSRAND, JOHANNESBURG

Division of the Deputy Registrar (Research)

HUMAN RESEARCH ETHICS COMMITTEE (MEDICAL)
R14/49 Gray

CLEARANCE CERTIFICATE	PROTOCOL NUMBER M071024
PROJECT	Developing and Validating a Cultural and Age Appropriate Risk Reduction Counselling Intervention for Adolescent HIV Vaccine Trial Participants
INVESTIGATORS	Prof G Gray
DEPARTMENT	Perinatal HIV Research Unit
DATE CONSIDERED	07.10.26
DECISION OF THE COMMITTEE*	APPROVED UNCONDITIONALLY

Unless otherwise specified this ethical clearance is valid for 5 years and may be renewed upon application

DATE 07.11.28 CHAIRPERSON .....
(Professor PE Cleaton-Jones, A Dhai, M Vorster, C Feldman, A Woodiwiss)

*Guidelines for written 'informed consent' attached where applicable

cc: Supervisor : Prof G Gray

DECLARATION OF INVESTIGATOR(S)

To be completed in duplicate and **ONE COPY** returned to the Secretary at Room 10005, 10th Floor, Senate House, University.

I/We fully understand the conditions under which I am/we are authorized to carry out the abovementioned research and I/we guarantee to ensure compliance with these conditions. Should any departure to be contemplated from the research procedure as approved I/we undertake to resubmit the protocol to the Committee. I agree to a completion of a yearly progress report.

PLEASE QUOTE THE PROTOCOL NUMBER IN ALL ENQUIRIES

Appendix F: Letter to the NIH

University
of the Witwatersrand,
Johannesburg

Human Research Ethics Committee: (Medical)
FWA Registered No IRB 00001223

SECRETARIAT: Suite 189, Private Bag x2600, Houghton 2041, South Africa • Tel: +27-11-274-9200 • Fax: +27-11-274-9281

18 October 2007

TO WHOM IT MAY CONCERN AT NIH GRANTS / NATIONAL INSTITUTE OF MENTAL HEALTH

RE: PROJECT TITLE – DEVELOPING APPROPRIATE RISK REDUCTION INTERVENTIONS FOR PRE-TEENS

As Chair of the Human Research Ethics Committee (Medical) at the University of the Witwatersrand, I confirm:

1. All new sub-projects arising in grant number 1R21MH083308 – 01 will be reviewed by my committee before they are allowed to begin. This is our standard operating procedure.
2. Administrative approval that is required by the NIMH and given by our IRB to allow for the processing of this abovementioned grant, does not translate into approval to conduct research as stipulated above in point 1.
3. The first of these protocols, "Developing and validating a cultural and age appropriate risk reduction counseling intervention for adolescent HIV vaccine trial participants" will be reviewed at the IRB meeting of 26 October 2007

Professor Peter Cleaton-Jones
BDS, MBBCh, PhD, DSc (Dent), FCD, DTM&H, DPH, DA, MASSAf
Chair, Human Research Ethics Committee (Medical)

Appendix G: Request for Amendment to conduct Phase 1b

PERINATAL HIV RESEARCH UNIT

Company Reg No: 97/15443/07
Postal Address: P.O Box 114
Diepkloof
1864
Gauteng
South Africa
Tel: +27-11-989-9958
Fax: +27-11-989-9898
Website: www.hivsa.com

Wednesday, 16 July 2008

Ms Anisa Keshav
Secretariat: Human Research Ethics Committee
10th Floor, Senate House
University of Witwatersrand
Braamfontein

Dear Ms Keshav

RE: APPLICATION FOR A PROTOCOL AMENDMENT

Protocol Title: Developing and Validating a Cultural and Age Appropriate Risk Reduction Counselling Intervention for Adolescent HIV Vaccine Trial Participants

Principal Investigator	Dr G. Gray
Protocol Version	1.1
Version Date	September 2007
Wits IEC Reference Number	M071024

We recently completed the Focus Group Discussions which is a component of Phase I as outlined in the approved protocol. Another component of Phase I is to conduct a cross sectional survey. This amendment seeks approval for the cross sectional survey. We shall administer 300 questionnaires to adolescents aged 16-18 years of age. Please see the protocol for details.

I have attached the amended protocol, the cross sectional questionnaire and the necessary consent forms (parents and adolescent consent forms).

We do hope that this application will be considered favourably. Should there be any queries, please do not hesitate to contact Janan Dietrich at (011) 989 9752.

Yours sincerely

Charlene Conradie
Research Operations Coordinator
Perinatal HIV Research Unit
Email: conradiec@hivsa.com

Appendix H: Letter of Approval to conduct Phase 1b

University
of the Witwatersrand,
Johannesburg

Human Research Ethics Committee (Medical)
(formerly Committee for Research on Human Subjects (Medical))

Secretariat: Research Office, Room SH10005, 10th floor, Senate House • Telephone: +27 11 717-1234 • Fax: +27 11 339-5708
Private Bag 3, Wits 2050, South Africa

11 August 2008

Mrs Charlene Conradie
Research Operations Coordinator
Perinatal HIV Research Unit
CH Baragwanath Hospital
University

Dear Charlene

RE: Protocol M071024: Developing and Validating a Cultural and Age Appropriate Risk Reduction Counselling Intervention for Adolescent HIV Vaccine Trial Participants (R14/49 G Gray)

This letter serves to confirm that the Chairman of the Human Research Ethics Committee (Medical) has approved your request to conduct a cross sectional survey where questionnaires will be administered to 300 adolescents aged 16-18years. Copy attached.

Yours sincerely,

Anisa Keshav (Ms)
Secretary
Human

Appendix I: Request for Amendment to extend Phase 1b

PERINATAL HIV RESEARCH UNIT

Company Reg No: 97/15443/07
Postal Address: P.O Box 114
Diepkloof
1864
Gauteng
South Africa
Tel: +27-11-989-9958
Fax: +27-11-989-9898
Website: www.hivsa.com

Protocol Title: Developing and Validating a Cultural and Age Appropriate Risk Reduction Counselling Intervention for Adolescent HIV Vaccine Trial Participants
Principal Investigator Dr G. Gray
Wits IEC Reference Number M071024

Thursday, 8 January 2009

Prof P Cleaton-Jones
C/o Ms Anisa Keshav
Secretariat: Human Research Ethics Committee
10th Floor, Senate House
University of Witwatersrand
Braamfontein

Dear Prof Cleaton-Jones

RE: Application for amendment to study

We recently completed the survey (Protocol Version 1.2, July 2008 - Phase I: Expansion of Cross Sectional Survey), which we received approval for on the 11th of August 2008.

We now received additional funding to improve the generalizability of the findings and to extend the survey to additional population groups. This amendment seeks approval for the following:

1. To administer an additional 200 questionnaires with 16-18 year olds in Soweto.
2. To administer 100 questionnaires in an urban coloured area, such as, Eldorado Park.
3. To administer 100 questionnaires in urban areas where we can access white 16-18 year old participants.
4. To administer the questionnaire in an urban Indian area, such as, Lenasia.

The same questionnaire, adolescent consent form and parental consent form will be used. I have attached the amended protocol and highlighted amendments where applicable.

We do hope that this application will be considered favourably. Should there be any queries, please do not hesitate to contact us.

Yours sincerely

Charlene Conradie
Research Operations Coordinator (Regulatory)

Appendix J: Letter of Approval to extend Phase 1b

University
of the Witwatersrand,
Johannesburg

Human Research Ethics Committee (Medical)
(formerly Committee for Research on Human Subjects (Medical))

Secretariat: Research Office, Room SH10005, 10th floor, Senate House • Telephone: +27 11 717-1234 • Fax: +27 11 339-5708
Private Bag 3, Wits 2050, South Africa

16 February 2009

Dr G Gray
PHRU

Dear Dr Gray

Re: M071024: Developing and validating a cultural and age appropriate risk reduction counselling intervention for adolescent HIV vaccine trial participants

Thank you for your letter of 8 January 2009, requesting approval for amendments to improve the generalizability of the findings and to extend the survey to additional population groups.

This request has been noted and approved by the Chairman of the HREC (Medical)

Thank you for keeping us informed.

Yours sincerely

Anisa Keshav
Secretary
HREC (Medical)

Appendix K: Request for Amendment to conduct Phase 2

PERINATAL HIV RESEARCH UNIT

Company Reg No: 97/15443/07
Postal Address: P.O Box 114
Diepkloof
1864
Gauteng
South Africa
Tel: +27-11-989-9958
Fax: +27-11-989-9898
Website: www.hivsa.com

Friday, 22 May 2009

Ms Anisa Keshav
Secretariat: Human Research Ethics Committee
10th Floor, Senate House
University of Witwatersrand
Braamfontein

Dear Ms Keshav

RE: Application for amendments to study: Pilot testing the modified CDC risk reduction model in a sample of 16-18 year old adolescents.

Protocol Title:	**Developing and Validating a Cultural and Age Appropriate Risk Reduction Counselling Intervention for Adolescent HIV Vaccine Trial Participants**
Principal Investigator	Dr G. Gray
Protocol Version	1.1
Version Date	September 2007
Wits IEC Reference Number	M071024

We completed PHASE 1 of the study which involved collecting data via focus group discussions, key informant interviews and cross sectional survey in Soweto. Data derived from PHASE 1 of the study has enabled the development of materials, curricula and training methods that will result in the implementation of a specific CDC risk reduction model that can be used with adolescents at PHRU sites. We would like to pilot test the modified CDC risk reduction model, in a sample of 16-18 year old adolescents. This will help determine the acceptability of this intervention amongst adolescents. Based on findings from this pilot intervention, we may adapt and evaluate the model further prior to utilization in randomized, controlled vaccine trials.

Twenty male and female adolescents aged 16- 18 years will be recruited from voluntary counselling and testing sites, schools, and youth centers in Soweto. Two assessments will be completed by each pilot test participant, the first administered prior to the counselling, and the second four weeks after receiving counselling.

I have attached the protocol, the questionnaire for assessments and consent forms for the above request.

We do hope that this application will be considered favourably. Should there be any queries, please do not hesitate to contact us.

Yours sincerely
Charlene Conradie
Research Operations Coordinator
Perinatal HIV Research Unit
Email: conradiec@hivsa.com

Appendix L: Letter of Approval to conduct Phase 2

UNIVERSITY OF THE WITWATERSRAND, JOHANNESBURG
Division of the Deputy Registrar (Research)

HUMAN RESEARCH ETHICS COMMITTEE (MEDICAL)
R14/49 Professor Glenda Gray

CLEARANCE CERTIFICATE	**M10235**
PROJECT	Developing and Validating a Cultural and Age Appropriate Risk reduction Counselling Intervention for Adolescent HIV Vaccine Trial Participants
INVESTIGATORS	Professor Glenda Gray.
DEPARTMENT	Perinatal HIV Research Unit
DATE CONSIDERED	26/02/2010
DECISION OF THE COMMITTEE*	Approved unconditionally

Unless otherwise specified this ethical clearance is valid for 5 years and may be renewed upon application.

DATE 30/04/2010 **CHAIRPERSON** .....
(Professor PE Cleaton-Jones)

*Guidelines for written 'informed consent' attached where applicable
cc: Supervisor : Prof G Gray

DECLARATION OF INVESTIGATOR(S)

To be completed in duplicate and **ONE COPY** returned to the Secretary at Room 10004, 10th Floor, Senate House, University.
I/We fully understand the conditions under which I am/we are authorized to carry out the abovementioned research and I/we guarantee to ensure compliance with these conditions. Should any departure to be contemplated from the research procedure as approved I/we undertake to resubmit the protocol to the Committee. **I agree to a completion of a yearly progress report.**

PLEASE QUOTE THE PROTOCOL NUMBER IN ALL ENQUIRIES...

Appendix M: Stellenbosch University Ethics Approval

UNIVERSITEIT•STELLENBOSCH•UNIVERSITY
jou kennisvennoot • your knowledge partner

04 April 2011 **MAILED**

Ms J Dietrich
102 North Street Ferndale
Ferndale
Johannesburg
2194

Dear Ms Dietrich

Adapting Psychosocial Intervention to Reduce HIV Risk Among Likely Adolescent Participants in HIV Biomedical Trials.

ETHICS REFERENCE NO: N11/03/077

RE : APPROVED WITH STIPULATIONS

It is a pleasure to inform you that a review panel of the Health Research Ethics Committee has approved the above-mentioned project with STIPULATIONS on 04 April 2011, including the ethical aspects involved, for a period of one year from this date.

1.□The consent form for the parents is missing and must be submitted
2.□a waiver of parental consent in 16-17 year olds would be acceptable, though this has not been requested but parental consent for 13-15 age group must be obtained.

This project is therefore now registered and you can proceed with the work. Please quote the above-mentioned project number in ALL future correspondence. You may start with the project. Notwithstanding this approval, the Committee can request that work on this project be halted temporarily in anticipation of more information that they might deem necessary.

Please note a template of the progress report is obtainable on www.sun.ac.za/rds and should be submitted to the Committee before the year has expired. The Committee will then consider the continuation of the project for a further year (if necessary). Annually a number of projects may be selected randomly and subjected to an external audit.

Translations of the consent document in the languages applicable to the study participants should be submitted.

Federal Wide Assurance Number: 00001372
Institutional Review Board (IRB) Number: IRB0005239

The Health Research Ethics Committee complies with the SA National Health Act No.61 2003 as it pertains to health research and the United States Code of Federal Regulations Title 45 Part 46. This committee abides by the ethical norms and principles for research, established by the Declaration of Helsinki, the South African Medical Research Council Guidelines as well as the Guidelines for Ethical Research: Principles Structures and Processes 2004 (Department of Health).

Please note that for research at primary or secondary healthcare facility permission must still be obtained from the relevant authorities (Western Cape Department of Health and/or City Health) to conduct the research as stated in the protocol. Contact

Fakulteit Gesondheidswetenskappe · Faculty of Health Sciences

Verbind tot Optimale Gesondheid · Committed to Optimal Health
Afdeling Navorsingsontwikkeling en -steun · Division of Research Development and Support
Posbus/PO Box 19063 · Tygerberg 7505 · Suid-Afrika/South Africa
Tel.: +27 21 938 9075 · Faks/Fax: +27 21 931 3352

UNIVERSITEIT·STELLENBOSCH·UNIVERSITY
jou kennisvennoot • your knowledge partner

persons are Ms Claudette Abrahams at Western Cape Department of Health (healthres@pgwc.gov.za Tel: +27 21 483 9907) and Dr Hélène Visser at City Health (Helene.Visser@capetown.gov.za Tel: +27 21 400 3981). Research that will be conducted at any tertiary academic institution requires approval from the relevant hospital manager. Ethics approval is required BEFORE approval can be obtained from these health authorities.

Approval Date: 04 April 2011 Expiry Date: 04 April 2012

Yours faithfully

MS CARLI SAGER
RESEARCH DEVELOPMENT AND SUPPORT
Tel: +27 21 938 9140 / E-mail: carlis@sun.ac.za
Fax: +27 21 931 3352

Appendix N: Phase 1a Informed Consent for Adolescents

DEVELOPING AND VALIDATING A CULTURAL AND AGE APPROPRIATE RISK REDUCTION COUNSELLING INTERVENTION FOR ADOLESCENT HIV VACCINE TRIAL PARTICIPANTS

Principal Investigator:	Dr Glenda Gray
Co-Investigators:	Dr James McIntyre Dr Guy de Bruyn Precious Modiba Janan Dietrich Busi Nkala Tumi Tshabalala Sibongile Dladla Atholl Kleinhans
Department:	Perinatal HIV Research Unit
Telephone number:	+27 11 989 9703

WHY IS THE STUDY BEING DONE?

We would like to invite you to participate in a research study that will be conducted in Soweto for adolescents between the ages of 16 and 18 years. We would like to learn more about how adolescents, like you, live in Soweto. We also want to know about the challenges that adolescents face in their daily lives. So, we are going to talk to you about where you live, your family and your daily lives: like schooling, your friends and what you like to do in their spare time. We are interested in understanding more about you because we want to develop specific counseling programmes for teenagers. The aim is to use these counseling programmes to help teenagers prevent HIV infection.

Your have been invited as a possible participant because you are between the ages 16-18 years of age and because you live in Soweto. You are one of 20 children that has been selected to join this study.

This study is sponsored by the Perinatal HIV Research Unit and the person in charge is Dr Glenda Gray. Please read the information below, and ask questions about anything you do not understand, before deciding whether you would like your child to participate or not. If you agree that your child may participate in the study, you will be asked to sign this consent form. You will get a copy to keep.

WHAT IS INVOLVED IN THE STUDY?

Five focus group discussions will be conducted. Each group will consist of 10 participants. One group will consist of 16-18 year old males, one group will consist of 16-18 year old females, two will consist of parents and the final group will consist of counselors that have experience in

voluntary counseling and testing. Participants for the focus group discussions will be recruited from sites in Soweto frequented by adolescents e.g. schools, parks, youth centers, bars. Parents of adolescents will be approached at community centers. The counselors will be recruited from the PHRU's VCT sites that are based within Soweto. All participants will be required to provide consent. For adolescents under the age of 18, parental consent will be sought. Fieldworkers will inform potential participants about the aim of the study and the rational for the focus group discussions. The Focus Group Discussions (FGD) will be held in a private room at the PHRU or a designated private area in a community center in Soweto. The focus group discussions will be recorded via audiotapes so that we can analyse the discussions at a later stage. These tapes will only be accessible to the study staff. Your names will not be put on the tapes.

HOW LONG WILL THE STUDY BE?
The group discussions will be a once-off activity that will last for about one and a half hours, and will occur after informed consent has been obtained.

WHAT ARE THE RISKS AND DISCOMFORTS?
You may be uncomfortable answering the personal questions. If you are uncomfortable, you have the right not to answer the questions. The discussion will be done in a group setting and you may be uncomfortable speaking in a group.

WHAT ARE THE BENEFITS?
There are no direct benefits for joining this study.

WILL MY INFORMATION BE KEPT PRIVATE?
The investigator and the study staff will keep the records private. The study staff, and study monitors may look at the records, but these records will be kept confidential.

However if we learn that you are being abused/neglected, or having sex under the legal age, with an older person, we will follow the South African reporting laws for a minor.

WHAT ARE THE COSTS INVOLVED?
There will be no costs to you.

ARE THERE REIMBURSEMENT FOR TAKING PART IN THE STUDY/
You will be given R50, in cash, for transport costs.

WHAT IF I DECIDE NOT TO PARTICPATE?
Your participation is voluntary. Your decision not to join the study will not affect you in any way. You are free to withdraw from the study any time.

WHO DO I CALL IF I HAVE ANY PROBLEMS?
You can call Dr Glenda Gray at the PHRU at (011) 989 9703 or Prof Cleaton Jones at WITS Ethics Committee (011) 717 2100.

AGREEMENT

I have read (or someone has read to me) the information provided above. I have been given a chance to ask questions. All my questions have been answered. I have decided to agree to participate in this study.

Name of parent/guardian	**Signature**	**Date**

Participant's name (print)	Participant's signature or mark	Date	Time (if signed on date of enrollment)
Study staff conducting consent /discussion (print)	Study staff signature	Date	Time (if signed on date of enrollment)
Witness (print)	Signature	Date	Time (if signed on date of enrollment)

Appendix N: Phase 1a Informed Consent for Parental Permission (continued)

Phase 1a Informed Consent for Parental Permission
DEVELOPING AND VALIDATING A CULTURAL AND AGE APPROPRIATE RISK REDUCTION COUNSELLING INTERVENTION FOR ADOLESCENT HIV VACCINE TRIAL PARTICIPANTS

Principal Investigator:	Dr Glenda Gray
Co-Investigators:	Dr James McIntyre Dr Guy de Bruyn Precious Modiba Janan Dietrich Busi Nkala Tumi Tshabalala Sibongile Dladla Atholl Kleinhans
Department:	Perinatal HIV Research Unit
Telephone number:	+27 11 989 9703

WHY IS THE STUDY BEING DONE?

We would like to invite your child to participate in a research study that will be conducted in Soweto for adolescents between the ages of 16 and 18 years. We would like to learn more about how adolescents, like your children, live in Soweto. We also want to know about the challenges that adolescents face in their daily lives. So, we are going to talk to you about where you live, your family, your children's daily lives: like their schooling, their friends and what they like to do in their spare time. We are interested in understanding more about your children because we want to develop specific counseling programmes for teenagers. The aim is to use these counseling programmes to help teenagers prevent HIV infection.

Your child has been invited as a possible participant because they are within the required age group (16-18 years) and because they live in Soweto. Your child is one of 20 children that have been selected to join this study.

This study is sponsored by the Perinatal HIV Research Unit and the person in charge is Dr Glenda Gray. Please read the information below, and ask questions about anything you do not understand, before deciding whether you would like your child to participate or not. If you agree that your child may participate in the study, you will be asked to sign this consent form. You will get a copy to keep.

WHAT IS INVOLVED IN THE STUDY?

Five focus group discussions will be conducted. Each group will consist of 10 participants. One group will consist of 16-18 year old males, one group will consist of 16-18 year old females, two will consist of parents and the final group will consist of counselors that have experience in voluntary counseling and testing. Participants for the focus group discussions will be recruited from sites in Soweto frequented by adolescents e.g. schools, parks, youth centers, bars. Parents of adolescents will be approached at community centers. The counselors will be recruited from the PHRU's VCT sites that are based within Soweto. All participants will be required to provide consent. For adolescents under the age of 18, parental consent will be sought. Fieldworkers will inform potential participants about the aim of the study and the rationale for the focus group discussions. The Focus Group Discussions (FGD) will be held in a private room at the PHRU or a designated private area in a community center in Soweto. The focus group discussions will be recorded via audiotapes so that we can analyse the discussions at a later stage. These tapes will only be accessible to the study staff. Your names will not be put on the tapes.

HOW LONG WILL THE STUDY BE?
The group discussions will be a once of activity that will last for about one and a half hours, and will occur after informed consent has been obtained.

WHAT ARE THE RISKS AND DISCOMFORTS?
Your child might be uncomfortable answering the personal questions. If your child is uncomfortable, they have the right not to answer the questions. The discussion will be done in a group setting and your child might be uncomfortable speaking in a group.

WHAT ARE THE BENEFITS?
By participating, your child may learn about how to protect themselves against HIV. They will receive information about future HIV vaccine trails, and will have an opportunity to express their desire to participate.

WILL MY CHILD'S INFORMATION BE KEPT PRIVATE?
The investigator and the sponsor National Institute of Health (NIH) will keep the records private. The study staff, and study monitors may look at the records, but these records will be kept confidential.

However if we find out that your child is being abused/neglected, or is having sex under the legal age, with an older person, we will follow the South African reporting laws for a minor.

WHAT ARE THE COSTS INVOLVED?
There will be no costs to you or your child.

ARE THERE REIMBURSEMENT FOR TAKING PART IN THE STUDY/
Your child will be given R50, in cash, for transport costs. You will not be reimbursed for consenting.

WHAT IF MY CHILD DECIDES NOT TO PARTICPATE?

Your child's participation is voluntary. Your child's decision not to join the study will not affect you or your child's current or future care. You and your child can also withdraw your consent at any time during the study.

WHO DO I CALL IF I HAVE ANY PROBLEMS?
You can call Dr Glenda Gray at the PHRU at (011) 989 9703 or Prof Cleaton Jones at WITS Ethics Committee (011) 717 2100.

AGREEMENT
I have read (or someone has read to me) the information provided above. I have been given a chance to ask questions. All my questions have been answered. I have decided to agree that my child can participate in this study.

Participant's name (print)	Participant's signature or mark	Date	Time (if signed on date of enrollment)
Study staff conducting consent /discussion (print)	Study staff signature	Date	Time (if signed on date of enrollment)
Witness (print)	Signature	Date	Time (if signed on date of enrollment)

Appendix N: Phase 1a Informed Consent for Parent Participants (continued)

Phase 1a Informed Consent for Parent Participants

DEVELOPING AND VALIDATING A CULTURAL AND AGE APPROPRIATE RISK REDUCTION COUNSELLING INTERVENTION FOR ADOLESCENT HIV VACCINE TRIAL PARTICIPANTS

Principal Investigator:	Glenda Gray
Co-Investigators:	Dr James McIntyre Dr Guy de Bruyn Precious Modiba Janan Dietrich Busi Nkala Tumi Tshabalala Sibongile Dladla Atholl Kleinhans
Department:	Perinatal HIV Research Unit
Telephone number:	+27 11 989 9752

WHY IS THE STUDY BEING DONE?

We would like to invite you to participate in a research study that will be conducted in Soweto. We would like to learn more about how your adolescents live their lives in Soweto. We also want to know about the challenges that adolescents face in their daily lives, from your perspective. So, we are going to talk to you about where you live, your family, your children's daily lives: like their schooling, their friends and what they like to do in their spare time. We are interested in understanding more about your children because we want to develop specific counseling programmes for teenagers. The aim is to use these counseling programmes to help teenagers prevent HIV infection.

You have been invited as a possible participant because you have a child between 16-18 years old and because he/she lives in Soweto. You will be one of 10 parents who have been selected to join this study. Please be aware that your child will not participate in this study.

This study is sponsored by Perinatal HIV Research Unit and the National Institute of Health in the United Stated of America. The person in charge is Prof Glenda Gray. Please read the information below, and ask questions about anything you do not understand, before deciding whether you would like to participate or not. If you agree that to participate in the study, you will be asked to sign this consent form. You will get a copy to keep.

WHAT IS INVOLVED IN THE STUDY?
Five focus group discussions will be conducted. Each group will consist of 10 participants. One group will consist of 16-18 year old males, one group will consist of 16-18 year old females, two will consist of parents and the final group will consist of counselors that have experience in voluntary counseling and testing. Participants for the focus group discussions will be recruited from sites in Soweto frequented by adolescents e.g. schools, parks, youth centers, bars. Parents of adolescents will be approached at community centers. Children of parent participants will not participate in this study. The counselors will be recruited from the PHRU's VCT sites that are based within Soweto. All participants will be required to provide consent. For adolescents under the age of 18, parental consent will be sought. Fieldworkers will inform potential participants about the aim of the study and the rationale for the focus group discussions. The Focus Group Discussions (FGD) will be held in a private room at the PHRU or a designated private area in a community center in Soweto. The focus group discussions will be recorded via audiotapes so that we can analyse the discussions at a later stage. These tapes will only be accessible to the study staff. Your names will not be put on the tapes.

HOW LONG WILL THE STUDY BE?
The group discussions will be a once-off activity that will last for about one and a half hours, and will occur after informed consent has been obtained.

WHAT ARE THE RISKS AND DISCOMFORTS?
You might be uncomfortable answering the personal questions. If you are uncomfortable, you have the right not to answer the questions. The discussion will be done in a group setting and you might be uncomfortable speaking in a group.

WHAT ARE THE BENEFITS?
There is no direct benefit in participating in the study. Although, by participating in the study, you may learn more about how other parents cope with their teenage children, in general.

CONFIDENTIALITY
Every attempt will be made to keep all information collected in this study strictly confidential, except as may be required by court order or by law. If any publications result from this research, you will not be identified by name.

Please be aware that we can not guarantee confidentiality with focus group participants. We can not control for the actions that may be taken by fellow focus group participants, for instance they may share information with others outside of the focus group discussion. We will request that all focus group participants do no share information obtained during the focus group discussion with people outside of the focus group discussion.

WILL MY INFORMATION KEPT PRIVATE?
The investigator and study staff will keep the records private and secure in locked cabinets. Only study staff will access to the records. The study staff, and study monitors may look at the records, but these records will be kept confidential.

WHAT ARE THE COSTS INVOLVED?
There will be no costs to you.

ARE THERE REIMBURSEMENT FOR TAKING PART IN THE STUDY/
For taking part in the study you will be given R50 in cash.

WHAT IF I DECIDE NOT TO PARTICPATE?
Your participation is voluntary. Your decision not to join the study will not affect you or your child in any way. You are free to withdraw your consent at any time during the study.

WHO DO I CALL IF I HAVE ANY PROBLEMS?
You can call Dr Glenda Gray at the PHRU at (011) 989 9703 or Prof Cleaton Jones at WITS Ethics Committee (011) 717 2229.

AGREEMENT
I have read (or someone has read to me) the information provided above. I have been given a chance to ask questions. All my questions have been answered. I have decided to agree to take part in this study.

Name of participant	**Signature**	**Date**

Name of Witness	**Signature**	**Date**

Name of study staff	**Signature**	**Date**

Appendix N: Phase 1a Informed Consent for Counselors (continued)

Phase 1 a Informed Consent for Counselors

DEVELOPING AND VALIDATING A CULTURAL AND AGE APPROPRIATE RISK REDUCTION COUNSELLING INTERVENTION FOR ADOLESCENT HIV VACCINE TRIAL PARTICIPANTS

Principal Investigator:	Dr Glenda Gray
Co-Investigators:	Dr James McIntyre Dr Guy de Bruyn Precious Modiba Janan Dietrich Busi Nkala Tumi Tshabalala Sibongile Dladla Atholl Kleinhans
Department:	Perinatal HIV Research Unit
Telephone number:	+27 11 989 9703

WHY IS THE STUDY BEING DONE?

We would like to invite you to participate in a research study that will be conducted in Soweto. Currently we do VCT for adults and looking to develop a protocol for adolescents. As people who are or have been working with the youth, we would like you to give us an understanding of your experiences in working with adolescents. We would like to learn more about your experience as a counselor with adolescents. We want to know about the challenges that adolescents face in their daily lives from your perspective. The aim is to use these counseling programmes to help teenagers prevent HIV infection.

This study is sponsored by the Perinatal HIV Research Unit and the person in charge is Dr Glenda Gray. Please read the information below, and ask questions about anything you do not understand, before deciding whether you would like to participate or not. If you agree to participate in the study, you will be asked to sign this consent form. You will get a copy to keep.

WHAT IS INVOLVED IN THE STUDY?

Five focus group discussions will be conducted. Each group will consist of 10 participants. One group will consist of 16-18 year old males, one group will consist of 16-18 year old females, two will consist of parents and the final group will consist of counselors that have experience in voluntary counseling and testing. Participants for the focus group discussions will be recruited from sites in Soweto frequented by adolescents e.g. schools, parks, youth centers, bars. Parents of adolescents will be approached at community centers. The counselors will be recruited from

the PHRU's VCT sites that are based within Soweto. All participants will be required to provide consent. For adolescents under the age of 18, parental consent will be sought. Fieldworkers will inform potential participants about the aim of the study and the rational for the focus group discussions. The Focus Group Discussions (FGD) will be held in a private room at the PHRU or a designated private area in a community center in Soweto. The focus group discussions will be recorded via audiotapes so that we can analyse the discussions at a later stage. These tapes will only be accessible to the study staff. Your names will not be put on the tapes.

HOW LONG WILL THE STUDY BE?
The group discussions will be a once of activity that will last for about one and a half hours, and will occur after informed consent has been obtained.

WHAT ARE THE RISKS AND DISCOMFORTS?
You might be uncomfortable answering the personal questions. If you are uncomfortable, you have the right not to answer the questions. The discussion will be done in a group setting and you might be uncomfortable speaking in a group.

WHAT ARE THE BENEFITS?
There is no direct benefit in participating in the study.

WILL MY INFORMATION KEPT PRIVATE?
The investigator will keep the records private. The study staff, and study monitors may look at the records, but these records will be kept confidential.

WHAT ARE THE COSTS INVOLVED?
There will be no costs to you.

IS THERE REIMBURSEMENT FOR TAKING PART IN THE STUDY?
For taking part in the study you will be given R50 in cash.

WHAT IF I DECIDE NOT TO PARTICPATE?
Your participation is voluntary. Your decision not to join the study will not affect your employment at the PHRU. You can also withdraw your consent at any time during the study.

WHO DO I CALL IF I HAVE ANY PROBLEMS?
You can call Dr Glenda Gray at the PHRU at (011) 989 9703 or Prof Cleaton Jones at WITS Ethics Committee (011) 717 2100.

AGREEMENT

I have read (or someone has read to me) the information provided above. I have been given a chance to ask questions. All my questions have been answered. I have decided to agree that my child can take part in this study.

Participant's name (print)	Participant's signature or mark	Date	Time (if signed on date of enrollment)
Study staff conducting consent /discussion (print)	Study staff signature	Date	Time (if signed on date of enrollment)
Witness (print)	Signature	Date	Time (if signed on date of enrollment)

Appendix N: Phase 1a Informed Consent for Audio-taping (continued)

Phase 1a Informed Consent for Audio-taping

Perinatal HIV Research Unit

Principal Investigator
Glenda Gray

Tel: 011-9899752

CONSENT FOR AUDIO-TAPING

DEVELOPING AND VALIDATING A CULTURAL AND AGE APPROPRIATEE RISK REDUCTION COUNSELLING INTERVENTION FOR ADOLESCENT HIV VACCINE TRIAL PARTICIPANTS

I agree that the interview with me may be digitally recorded and subsequently transcribed for analysis. I have been informed that the tapes will be kept for 2 years if the results are published and for 6 years if there is no publication. Following the applicable time, the digital recordings will be destroyed.

PARTICIPANT

Printed Name	Signature / Mark or Thumbprint	Date

Appendix O: Phase 1b Informed Consent for Adolescent Participation

DEVELOPING AND VALIDATING A CULTURAL AND AGE APPROPRIATE RISK REDUCTION COUNSELLING INTERVENTION FOR ADOLESCENT HIV VACCINE TRIAL PARTICIPANTS

WHY IS THE STUDY BEING DONE?

We would like to invite you to participate in a research study that will be conducted in Soweto for adolescents between the ages of 16 and 18 years. We would like to learn more about how adolescents, like you, live in Soweto. We also want to know about the challenges that adolescents face in their daily lives. So, we are going to ask you about how you manage your relationships, cope with the pressures of being a teenager and about difficult experiences that you may have had. We are interested in understanding more about adolescents like you because we want to develop a more appropriate and specific counseling programme for adolescents. The aim is to use these counseling programmes to help teenagers prevent HIV infection.

You have been invited as a possible participant because you are within the required age group (16-18 years) and because you live in Soweto. You are one of 300 children that have been selected to join this study.

This study is sponsored by the National Institute of Mental Health and the Perinatal HIV Research Unit and the person in charge is Dr Glenda Gray. Please read the information below, and ask questions about anything you do not understand, before deciding whether you would like to participate or not. If you agree to participate in the study, you will be asked to sign this consent form. You will get a copy to keep.

WHAT IS INVOLVED IN THE STUDY?

Three hundred adolescents between the ages of 16 and 18 years will be selected from various sites (bars, schools, churches, adolescent friendly clinics) in Soweto to complete a questionnaire. One hundred and eighty (60%) participants will be females and the remaining 120 (40%) will be males. If possible, we shall enroll one hundred participants in each age range. For adolescents under the age of 18, parental consent will be mandatory for the adolescent's participation. The entire questionnaire should take about one and a half hours to complete. You will complete the questionnaires on your own however a field worker will assist you where you need help. The questionnaires will be made available in Zulu and Sotho. The trained field workers will be available to answer any questions regarding the aims and objectives of the study, or to clarify some of the questions that may be confusing.

Your responses to the questionnaire will be confidential. You will be guaranteed anonymity as the questionnaire does not ask for any identifiable details regarding your information. Please be aware that your parents will have not access to your responses on the questionnaire.

WHAT ARE THE RISKS AND DISCOMFORTS?
You might be uncomfortable answering the personal questions. If you are uncomfortable, you have the right not to answer the questions.

WHAT ARE THE BENEFITS?
There are no direct benefits for joining this study.

CONFIDENTIALITY
Any information that you provide in the questionnaire will be treated with the utmost confidentiality. You are guaranteed anonymity as the questionnaire does not ask for identifiable details and thus neither the fieldworkers nor researchers involved in this study will know which questionnaire was filled in by you. Every attempt will be made to keep all information collected in this study strictly confidential, except as may be required by court order or by law. If any publications result from this research, you will not be identified by name and the results will appear as a combination of all the participants' responses, so your particular responses will not be detected.

WILL MY INFORMATION BE KEPT PRIVATE?
The only persons who will have access to the information you provide will be the study staff. The records will be kept private and secure in locked cabinets. Only study staff will have access to the records. The study staff, and study monitors may look at the records, but these records will be kept confidential.

However if we learn that you are being abused/neglected, or having sex with a minor, we shall follow the South African reporting laws for these situations. If the study team learns that you are intending to inflict harm on yourself or upon others we shall take the necessary steps to refer you for counselling.

WHAT ARE THE COSTS INVOLVED?
There will be no costs to you or your parents.

ARE THERE REIMBURSEMENT FOR TAKING PART IN THE STUDY/
You will be given R50, in cash, for transport costs. You will not be reimbursed for consenting.

WHAT IF I DECIDE NOT TO PARTICPATE?
Your participation is voluntary, that is, you decide if you want to participate on your own. Your decision not to join the study will not affect your current or future care at the Perinatal HIV Research Unit. You can also withdraw your consent at any time during the study without any negative consequences.

WHO DO I CALL IF I HAVE ANY PROBLEMS?
You can call Dr Glenda Gray at the PHRU at (011) 989 9703 or Prof Cleaton Jones at WITS Ethics Committee (011) 717 2229.

AGREEMENT

I have read (or someone has read to me) the information provided above. I have been given a chance to ask questions. All my questions have been answered. I have decided to agree to participate in this study.

Name of adolescent	**Signature**	**Date & Time**

Name of Witness	**Signature**	**Date & Time**

Name of study staff	**Signature**	**Date & Time**

Appendix O: Phase 1b Informed Consent for Parental Permission (continued)

DEVELOPING AND VALIDATING A CULTURAL AND AGE APPROPRIATE RISK REDUCTION COUNSELLING INTERVENTION FOR ADOLESCENT HIV VACCINE TRIAL PARTICIPANTS

Principal Investigator:	Dr Glenda Gray
Co-Investigators:	Dr James McIntyre Dr Guy de Bruyn Janan Dietrich Precious Modiba Mamakiri Khunwane Busi Nkala Sibongile Dladla Rikash Jokhan Atholl Kleinhans Thulani Behanet
Department:	Perinatal HIV Research Unit
Telephone number:	+27 11 989 9702

WHY IS THE STUDY BEING DONE?

We would like to invite your child to participate in a research study that will be conducted in Soweto for adolescents between the ages of 16 and 18 years. We would like to learn more about how adolescents, like your children, live in Soweto. We also want to know about the challenges that adolescents face in their daily lives. So, we are going to ask your child about he/she manages his/her relationships, copes with the pressures of being a teenager and about difficult experiences that he/she may have had. We are interested in understanding more about your children because we want to develop a more appropriate and specific counseling programme for adolescents. The aim is to use these counseling programmes to help teenagers prevent HIV infection.

Your child has been invited as a possible participant because they are within the required age group (16-18 years) and because they live in Soweto. Your child is one of 300 children that have been selected to join this study.

This study is sponsored by the National Institute of Mental Health and the Perinatal HIV Research Unit and the person in charge is Dr Glenda Gray. Please read the information below, and ask questions about anything you do not understand, before deciding whether you would like your child to participate or not. If you agree that your child may participate in the study, you will be asked to sign this consent form. You will get a copy to keep.

WHAT IS INVOLVED IN THE STUDY?
Three hundred adolescents between the ages of 16 and 18 years will be selected from various sites (bars, schools, churches, adolescent friendly clinics) in Soweto to complete a questionnaire. One hundred and eighty (60%) participants will be females and the remaining 120 (40%) will be males. If possible, we shall enroll one hundred participants in each age range. For adolescents under the age of 18, parental consent will be mandatory for the adolescent's participation. The entire questionnaire should take about one and a half hours to complete. The questionnaires will be self administered and will be made available in Zulu and Sotho. The trained field workers will be available to answer any questions regarding the aims and objectives of the study, or to clarify some of the questions that may be confusing.

Your child's responses to the questionnaire will be confidential, thus your child will be guaranteed anonymity as the questionnaire does not ask for any identifiable details regarding your child. Please be aware that you will not access to your child's responses on the questionnaire.

WHAT ARE THE RISKS AND DISCOMFORTS?
Your child might be uncomfortable answering the personal questions. If your child is uncomfortable, they have the right not to answer the questions.

WHAT ARE THE BENEFITS?
There are no direct benefits for joining this study.

CONFIDENTIALITY
Any information that your child provide in the questionnaire will be treated with the utmost confidentiality. You are guaranteed anonymity as the questionnaire does not ask for identifiable details and thus neither the fieldworkers nor researchers involved in this study will know which questionnaire was filled in by your child. Every attempt will be made to keep all information collected in this study strictly confidential, except as may be required by court order or by law. If any publications result from this research, your child will not be identified by name and the results will appear as a combination of all the participants' responses, so your child's particular responses will not be detected.

WILL MY CHILD'S INFORMATION BE KEPT PRIVATE?
The only persons who will have access to the information you provide will be the study staff. The records will be kept private and secure in locked cabinets. Only study staff will have access to the records. The study staff, and study monitors may look at the records, but these records will be kept confidential.

However if we learn that your child is being abused/neglected, or having sex with a minor, we shall follow the South African reporting laws for these situations. If the study team learns that your child is intending to inflict harm on him/herself or upon others we shall take the necessary steps to refer him/her for counselling.

WHAT ARE THE COSTS INVOLVED?
There will be no costs to you or your child.

ARE THERE REIMBURSEMENT FOR TAKING PART IN THE STUDY?
Your child will be given R50, in cash, for transport costs. You will not be reimbursed for consenting.

WHAT IF MY CHILD DECIDES NOT TO PARTICPATE?
Your child's participation is voluntary. Your child's decision not to join the study will not affect you or your child's current or future care at the Perinatal HIV Research Unit. You and your child can also withdraw your consent at any time during the study without any negative consequences.

WHO DO I CALL IF I HAVE ANY PROBLEMS?
You can call Dr Glenda Gray at the PHRU at (011) 989 9703 or Prof Cleaton Jones at WITS Ethics Committee (011) 717 2301.

AGREEMENT
I have read (or someone has read to me) the information provided above. I have been given a chance to ask questions. All my questions have been answered. I have decided to agree that my child can participate in this study.

Name of parent/guardian	Signature	Date & Time
Name of adolescent	Signature	Date & Time
Name of Witness	Signature	Date & Time
Name of study staff	Signature	Date & Time

Appendix P: Phase 2 Informed Assent for Adolescents (16–17)

Informed Consent for Adolescent Participation (16-17 years of age)

Office Number: 011 989 9752

HIV Risk Reduction Counseling Intervention for Adolescents

WHY IS THE STUDY BEING DONE?

Hello my name is ..... I work for the Perinatal HIV Research Unit (PHRU). We would like to invite you to take part in a study that will be done in Soweto for adolescents between 16-18 years of age. We have adapted a counselling intervention for adolescents like you. We would like you to participate in the counselling intervention so that we can see if it works and if we need to make any changes.

We received money from the National Institute of Mental Health (NIMH) to do this study. The person in charge is Prof Glenda Gray. Please read everything in this form and let the study staff know if you have questions or do not understand anything. If you agree to join the study you will have to sign the statement of assent at the back of this form. You can get a copy to keep. Please feel free to talk about joining the study with an adult like your parent, doctor or teacher.

WHAT IS INVOLVED IN THE STUDY?

Thirty (30) adolescents will be chosen to join the study. Adolescents will have to be between the ages of 16-18 years, like you. Participants will be recruited from Kganya-Motsha Adolescent Centre in Kliptown and have to live in Soweto. Joining the study will involve sharing personal information about yourself like your family relationships, schooling, your friends, romantic relationships, your opinions about sex and about your emotional well being. Your participation in the study will include two visits. The first visit will take about two hours of your time. You will be required to fill in a questionnaire, take part in a counselling session and then give us feedback about the counselling process. The second visit will be about 1 month to 2 months after the first visit and will take about one hour of your time. At second visit you will complete a questionnaire that will repeat some of questions asked at the first visit. Each visit will be held in a private room at the Kganya-Motsha Adolescent Centre, Kliptown.

WHAT ARE THE RISKS AND DISCOMFORTS?

You may be asked questions which you may not want to answer or you may feel uncomfortable to answer. You do not have to answer these questions.

WHAT ARE THE BENEFITS?

There are no direct benefits for joining this study. However, you will be assisting us in adapting a counselling intervention program that can be used for adolescents like you.

CONFIDENTIALITY

(Confidential means that everything you say during the interviews will only be known by the interviewer and the study team). Everything that you answer will be confidential as the study staff will not share your information with others outside of the study, except where necessary.

WILL MY INFORMATION BE KEPT PRIVATE?

(Private means only you; the interviewer and the staff members will know your information). The only persons who will have access to the information you provide will be the study staff. The information that you will share with us will be kept private and will be secure in locked cabinets and/or password protected computer files.

The law places some special obligations on people working with adolescents. This makes sure that if adolescents are in need of care or they are in danger then this must be reported to the South African Police Services so that those adolescents can be helped. Because of these obligations the things you tell us about your life, like your sexual behaviour will be private kept unless we find that you are in a situation where you are being hurt or taken advantage of by someone, for example, you have been raped or sexually abused. In this case we may need to tell someone so that they can help you get out of that situation. We will let you know if we are going to do that.

So, study staff WILL tell the authorities (South African Police Services), but NOT your parents:

- If you tell them that you are being abused or neglected
- If you tell them you have been the victim of a sexual offense, like rape
- If you tell them you are in a sexually exploitative relationship, in other words, even if you have agreed to the sex, the person is using you in an unfair way

In all the above cases you will be provided with appropriate support and study staff will help you tell your family so that they can help you deal with this situation.

Study staff WILL NOT tell the authorities, NOR will they tell your parents:

- If you inform them that you are abusing substances

In all the above cases, you will be referred for appropriate support and help.

WHAT ARE THE COSTS INVOLVED?

There will be no costs to you.

ARE THERE REIMBURSEMENT FOR TAKING PART IN THE STUDY

You will be given R50 for each visit to cover transport costs. You will not get money for signing this form.

WHAT IF I DECIDE NOT TO PARTICPATE IN THE STUDY?

You can withdraw your consent at any time during the study or decide not to take part in the study without any negative consequences. Even after signing the consent you can stop taking part in the study at any time. Your decision not to join the study will not affect your current or future care at Kganya-Motsha Adolescent Centre or the Perinatal HIV Research Unit (PHRU).

WHAT DO I DO IF I HAVE QUESTIONS OR PROBLEMS?

If you have questions about this study, contact Prof Glenda Gray on (011) 989 9752.

If you have questions about your rights as a research participant, or problems or concerns about how you are being treated in this study, contact or the ethics committee chairperson Professor Peter Cleaton-Jones on (011) 717 2301.

If you want to leave this study, contact Prof Glenda Gray on (011) 989 9752.

ETHICAL APPROVAL:

This clinical study protocol has been submitted to the University of the Witwatersrand, Human Research Ethics Committee (HREC) and written approval has been granted by that committee. The study has been structured in accordance with the Declaration of Helsinki (last updated: October 2008), which deals with the recommendations guiding doctors in biomedical research involving human participants. A copy may be obtained from me should you wish to review it.

STATEMENT OF ASSENT:

Title: HIV Risk Reduction Counseling Intervention for Adolescents

Information about this study has been given to you and you have had a chance to ask any questions you have had about the study. **Your parent has given written consent for you to join the study.** We have told you that it is your decision about whether or not to be in the study. You can decide if you want to participate in the study or you change your mind about being in the study without changing your care at our organization, or changing the way people who work for the organization treat you. If, at this time, you voluntarily agree to take part in this study, please sign your name below

SIGNATURES

PARTICIPANT ASSENT

Participant's name & Surname (print)	Participant's signature or mark	Date	Time
Study staff conducting consent discussion (print)	Study staff signature	Date	Time

For participants who are unable to read or write, also complete the signature block below:

Witness's name (print)#	Witness's signature	Date	Time

Witness is impartial and was present for the consent process.

NOTE: This form with the original signatures MUST be retained on file by the principal investigator. A copy must be given to the participant. A copy should be placed in the participant's medical record, if applicable.

Appendix P: Phase 2 Informed Consent for Parental Permission (continued)

Informed Consent for Parental Permission

DEVELOPING AND VALIDATING A CULTURAL AND AGE APPROPRIATE RISK REDUCTION COUNSELLING INTERVENTION FOR ADOLESCENT HIV VACCINE TRIAL PARTICIPANTS

Principal Investigator: Dr Glenda Gray +27 11 989 9752

WHY IS THE STUDY BEING DONE?

We would like to invite your child to take part in a research study that will be done in Soweto. We already have Voluntary Counselling and testing (VCT) for adults and would like to develop one that is specific for adolescents. We have been able to collect information that has helped us to adapt the existing adult VCT model. We now want to test the adapted VCT model to find out if it is suitable for use with adolescents.

Your child has been invited as a participant because he/she is between 16-18 years of age and because he/she lives in Soweto. Your child is one of 20 children that have been selected to take part in this study.

We received money from the National Institute of Mental Health (NIMH) to do this study. The person in charge is Dr Glenda Gray. Please read everything in this form. Please let the interviewer know if you do not understand anything. If you agree that your child can take part in the study, you will be asked to sign this consent form. You can get a copy to keep.

WHAT IS INVOLVED IN THE STUDY?

If you agree that your child can join the study, he/she will be asked to be part of a counseling session. It is expected that the counseling sessions will require a visit of up to 60 minutes, on one occasion. Your child will also be asked to complete two assessments; the first will take place before the counseling, and the second four weeks after receiving counseling. In addition, your child will be asked to complete an interview with a trained interviewer, which will take about 45 - 60 minutes. Your child will be given the opportunity to have an HIV test as this forms part of the VCT counselling session.

All participants will be required to provide consent. For adolescents under the age of 18, parental permission will be necessary too. Interviewers will tell participants about the reasons for doing the study. The counseling sessions, assessments and interviews will be held in a private room at Kganya Motsha Adolescent Center in Kliptown, Soweto. All interviews will be digitally recorded so that we can carefully listen to them at a later stage. All of the information obtained from your child will only be accessible to the

study staff. Names will not be put on any of the forms or the digitally recorded interview.

WHAT ARE THE RISKS AND DISCOMFORTS?

Some of the questions asked in a counseling session are personal and your child may feel embarrassed or uncomfortable. Your child will be made aware that he/she does not have to answer questions that he/she feels uncomfortable to answer. Your child will also be made aware that if he/she become upsets or uncomfortable during a counseling session, the session may be stopped on his/her request at any time.

Following an HIV test, your child may learn that he/she is HIV positive. Should this happen, we shall ensure that he/she receives the necessary support.

WHAT ARE THE BENEFITS?

There is no direct benefit in participating in the study.

CONFIDENTIALITY

(Confidential means that everything you say during the interviews will only be known by the interviewer and the study team). Everything that you answer will be confidential. Nobody will know what you said as the interviewer will not use your name and surname. Please be aware that your parents will not know what we have talked about unless you want to tell them.

WILL MY INFORMATION BE KEPT PRIVATE?

(Private means only you; the interviewer and the staff members will know your information)

The only persons who will have access to the information your child provide will be the study staff. The records will be kept private and secure in locked cabinets. Only study staff will have access to the records.

If we learn that your child is being abused/neglected or someone is touching him/her in ways he/she does not want to be touched (in a sexual manner), we shall follow the South African reporting laws for these situations by reporting the situation to the South African Police Services. If the study team learns that your child is intending to hurt him/her or others they will also have to take the necessary steps to refer your child for counseling.

WHAT ARE THE COSTS INVOLVED?

There will be no costs to you or your child.

IS THERE REIMBURSEMENT FOR TAKING PART IN THE STUDY?

For taking part in the study your child will be given R50 in cash.

WHAT IF I DECIDE NOT TO PARTICPATE?

If your child wishes not to take part in this study he/she will not be disadvantaged in anyway. This means that your child's decision not to join the study will not affect his/her current or future care at the Perinatal HIV Research Unit. Your child can also withdraw his/her consent at any time during the study without any negative consequences.

WHAT DO I DO IF I HAVE QUESTIONS OR PROBLEMS?

If you have questions about this study, contact Prof Glenda Gray on (011) 989 9752.

If you have questions about your rights as a research participant, or problems or concerns about how you are being treated in this study, contact or the ethics committee chairperson Professor Peter Cleaton-Jones on (011) 717 2301.

If you want to leave this study, contact Prof Glenda Gray on (011) 989 9752.

ETHICAL APPROVAL:

This clinical study protocol has been submitted to the University of the Witwatersrand, Human Research Ethics Committee (HREC) and written approval has been granted by that committee. The study has been structured in accordance with the Declaration of Helsinki (last updated: October 2008), which deals with the recommendations guiding doctors in biomedical research involving human participants. A copy may be obtained from me should you wish to review it.

AGREEMENT

I have read (or someone has read to me) the information provided above. I have been given a chance to ask questions. All my questions have been answered. I have decided to agree that my child take part in this study.

_____
PARTICIPANTS NAME & SURNAME

Parent's name & Surname (print)	**Participant's signature or mark**	**Date**	**Time**
Study staff conducting consent discussion (print)	**Study staff signature**	**Date**	**Time**

For participants who are unable to read or write, a witness will also complete the signature block below:

Witness's name & Surname (print)	**Witness's signature**	**Date**	**Time**

Appendix P: Informed consent for Adolescent Participation (18 years) (continued)

Informed Consent for Adolescent Participation (18 years of age)

Office Number: 011 989 9752

HIV Risk Reduction Counseling Intervention for Adolescents

WHY IS THE STUDY BEING DONE?

Hello my name is …….. I work for the Perinatal HIV Research Unit (PHRU). We would like to invite you to take part in a study that will be done in Soweto for adolescents between 16-18 years of age. We have adapted a counselling intervention for adolescents like you. We would like you to participate in the counselling intervention so that we can see if it works and to see if we need to make any changes.

We received money from the National Institute of Mental Health (NIMH) to do this study. The person in charge is Prof Glenda Gray. Please read everything in this form and let the study staff know if you have questions or do not understand anything. If you agree to join the study you will have to sign this consent form. You can get a copy to keep. Please feel free to talk about joining the study with an adult like your parent, doctor or teacher.

WHAT IS INVOLVED IN THE STUDY?

Thirty (30) adolescents will be chosen to join the study. Adolescents will have to be between the ages of 16-18 years, like you. Participants will be recruited from Kganya-Motsha Adolescent Centre in Kliptown and have to live in Soweto. Joining the study will involve sharing personal information about yourself like your family relationships, schooling, your friends, romantic relationships, your opinions about sex and about your emotional well being. Your participation in the study will include two visits. The first visit will take about two hours of your time. You will be required to fill in a questionnaire, take part in a counselling session and then give us feedback about the counselling process. The second visit will be about 1 month to 2 months after the first visit and will take about one hour of your time. At second visit you will complete a questionnaire that will repeat some of questions asked at the first visit. Each visit will be held in a private room at the Kganya-Motsha Adolescent Centre, Kliptown.

WHAT ARE THE RISKS AND DISCOMFORTS?

You may be asked questions which you may not want to answer or you may feel uncomfortable to answer. You do not have to answer these questions.

WHAT ARE THE BENEFITS?

There are no direct benefits for joining this study. However, you will be assisting us in adapting a counselling intervention program that can be used for adolescents like you.

CONFIDENTIALITY

(Confidential means that everything you say during the interviews will only be known by the interviewer and the study team). Everything that you answer will be confidential as the study staff will not share your information with others outside of the study, except where necessary.

WILL MY INFORMATION BE KEPT PRIVATE?

(Private means only you; the interviewer and the staff members will know your information). The only persons who will have access to the information you provide will be the study staff. The information that you will share with us will be kept private and will be secure in locked cabinets and/or password protected computer files.

The law places some special obligations on people working with adolescents. This makes sure that if adolescents are in need of care or they are in danger then this must be reported to the South African Police Services so that those adolescents can be helped. Because of these obligations the things you tell us about your life, like your sexual behaviour will be private kept unless we find that you are in a situation where you are being hurt or taken advantage of by someone, for example, you have been raped or sexually abused. In this case we may need to tell someone so that they can help you get out of that situation. We will let you know if we are going to do that.

So, study staff WILL tell the authorities (South African Police Services), but NOT your parents:

- If you tell them that you are being abused or neglected
- If you tell them you have been the victim of a sexual offense, like rape

- If you tell them you are in a sexually exploitative relationship, in other words, even if you have agreed to the sex, the person is using you in an unfair way

In all the above cases you will be provided with appropriate support and study staff will help you tell your family so that they can help you deal with this situation.

Study staff WILL NOT tell the authorities, NOR will they tell your parents:

- If you inform them that you are abusing substances

In all the above cases, you will be referred for appropriate support and help.

WHAT ARE THE COSTS INVOLVED?

There will be no costs to you.

ARE THERE REIMBURSEMENT FOR TAKING PART IN THE STUDY

You will be given R50 for each visit to cover transport costs. You will not get money for signing this form.

WHAT IF I DECIDE NOT TO PARTICPATE IN THE STUDY?

You can withdraw your consent at any time during the study or decide not to take part in the study without any negative consequences. Even after signing the consent you can stop taking part in the study at any time. Your decision not to join the study will not affect your current or future care at Kganya-Motsha Adolescent Centre or the Perinatal HIV Research Unit (PHRU).

WHAT DO I DO IF I HAVE QUESTIONS OR PROBLEMS?

If you have questions about this study, contact Prof Glenda Gray on (011) 989 9752.

If you have questions about your rights as a research participant, or problems or concerns about how you are being treated in this study, contact or the ethics committee chairperson Professor Peter Cleaton-Jones on (011) 717 2301.

If you want to leave this study, contact Prof Glenda Gray on (011) 989 9752.

ETHICAL APPROVAL:

This clinical study protocol has been submitted to the University of the Witwatersrand, Human Research Ethics Committee (HREC) and written approval has been granted by that committee. The study has been structured in accordance with the Declaration of Helsinki (last updated: October 2008), which deals with the recommendations guiding doctors in biomedical research involving human participants. A copy may be obtained from me should you wish to review it.

STATEMENT OF CONSENT:

Title: HIV Risk Reduction Counseling Intervention for Adolescents

Information about this study has been given to you and you have had a chance to ask any questions you have had about the study. We have told you that it is your decision about whether or not to be in the study. You can decide if you want to participate in the study or you change your mind about being in the study without changing your care at our organization, or changing the way people who work for the organization treat you. If, at this time, you voluntarily agree to take part in this study, please sign your name below

SIGNATURES

PARTICIPANT CONSENT

Participant's name & Surname (print)	Participant's signature or mark	Date	Time
Study staff conducting consent discussion (print)	Study staff signature	Date	Time

For participants who are unable to read or write, also complete the signature block below:

Witness's name & Surname (print)[#]	Witness's signature	Date	Time

[#] Witness is impartial and was present for the consent process.

NOTE: This form with the original signatures MUST be retained on file by the principal investigator. A copy must be given to the participant. A copy should be placed in the participant's medical record, if applicable.

Appendix P: Phase 2 Informed Consent for Audiotaping (continued)

Phase 2: Informed Consent for Audiotaping

Perinatal HIV Research Unit

Principal Investigator
Glenda Gray

Tel: 011-9899752

DEVELOPING AND VALIDATING A CULTURAL AND AGE APPROPRIATEE RISK REDUCTION COUNSELLING INTERVENTION FOR ADOLESCENT HIV VACCINE TRIAL PARTICIPANTS

I agree that the interview with me may be digitally recorded and subsequently transcribed for analysis. I have been informed that the tapes will be kept for 2 years if the results are published and for 6 years if there is no publication. Following the applicable time, the digital recordings will be destroyed.

Participant

Printed Name Signature / Mark or Thumbprint Date

Appendix Q: "Group sex" parties and other risk patterns: A qualitative study about the perceptions of sexual behaviors and attitudes of adolescents in Soweto, South Africa

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"Group sex" parties and other risk patterns: A qualitative study about the perceptions of sexual behaviours and attitudes of adolescents in Soweto, South Africa

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(*Received 13 December 2010; final form 14 June 2011*)

This study explored perceptions about sexual behaviours and attitudes of adolescents living in Soweto, Johannesburg, South Africa, from the perspective of parents, counsellors and adolescents. A qualitative methodology was applied. Nine focus-group discussions (FGDs) were held: three with parents of adolescents, two with counsellors who work with adolescents, two with female adolescents aged 16–18 years and two with male adolescents aged 16–18 years. In total, 80 participants were recruited from in and around Soweto. FGDs were guided by a semistructured interview guide, audiorecorded, transcribed verbatim and translated into English. Data were analysed using MAXQDA, a qualitative software analysis program. There were eight key themes related to adolescent sexuality and perceived attitudes towards relationships. Five themes were common to all participant groupings (parents, counsellors and adolescents): (1) dating during adolescence, (2) adolescent females dating older males, (3) condom use among adolescents, (4) pregnancy and (5) homosexuality. (6) Sex as a regular and important activity among adolescents and (7) group sex practices among adolescents emerged as themes from adolescent and counsellor FGDs. Lastly (8), the role of the media as an influence on adolescent sexuality was common to adolescent and parent groups. Risky sexual behaviours continue among adolescents, with group sex parties a concerning emergent phenomenon that necessitates further study. Human immunodeficiency virus, other sexually transmitted infections and pregnancy prevention interventions should address multiple levels of influence to address context-specific influences.

Keywords: adolescents; couple swapping; group sex; qualitative; sexual behaviours and attitudes; South Africa

Introduction

Physical and neurocognitive changes unique to adolescence herald behavioural shifts towards increased experimentation, peer reliance and an interest in sex (Spear, 2000). Sexual debut before 15 years is reported by 27% of school-going adolescents in sub-Saharan Africa (Peltzer, 2010). Perceptions of risk of pregnancy, sexually transmitted infections (STIs) and human immunodeficiency virus (HIV) have been studied widely among adolescents, and indicate that despite exhaustive knowledge and awareness and freely available condoms, risky sexual behaviours continue (Marston & King, 2006).

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South Africa continues to bear the global burden of HIV (Joint United Nations Programme on HIV/AIDS [UNAIDS], 2010); however, prevention strategies aimed at decreasing sexual risk-taking among 15–19-year-olds may be taking effect. An encouraging gain is that HIV prevalence among 15–24-year-olds has decreased from 10.3% in 2005 to 8.7% in 2008 (Shisana et al., 2009). In 2008, HIV prevalence among 15–19-year-olds in South Africa was 6.7% among females and 2.5% among males, with females disproportionately affected (Shisana et al., 2009). Concurrently, an increase in condom use has been observed among 15–24-year-olds from 57% in 2002 to 87.4% in 2008 and from 46% in 2002 to 73% in 2008 among males and females, respectively (Shisana et al., 2009). However, misconceptions around condom use and the perception that it reduces sexual pleasure continue among adolescents (Marston & King, 2006). Furthermore, national fertility rates among 15–19-year-old adolescent females appear to be decreasing. Nevertheless, it is argued that the decrease in fertility rates may be related to increased availability and use of legal terminations of pregnancy rather than a shift towards protective sexual behaviour (Moultrie & McGrath, 2007).

Taken together, these findings suggest that adolescent sexual behaviour in South Africa is beginning to change. Because of adolescents' predilection for novelty-seeking (Green, Kremar, Walters, Rubin, & Jerold, 2000; Gutiérrez-Martínez, Paz Bermúdez, Teva, & Bulela-Casal, 2007), it is important to consider emerging risk patterns in adolescent sexual behaviour and changes in perceptions about sex to design innovative and effective interventions.

The aim of the study was to explore perceptions of sexual behaviours and attitudes of adolescents in Soweto, Johannesburg, South Africa, from the perspective of adolescents, parents of adolescents and counsellors who work with adolescents.

Method

Perceptions of sexual behaviours and attitudes of adolescents in Soweto were investigated by considering multiple levels of influence; that is, individual, family, peers, relationship, government and the media. A qualitative approach was used to collect in-depth information from participants via focus-group discussions (FGDs). Bronfenbrenner's ecological systems theory guided the content of the FGDs (Bronfenbrenner, 1989).

Setting

The study was conducted in 2008 at the Perinatal HIV Research Unit (PHRU) at Chris Hani Baragwanath Hospital in Soweto. Soweto is an urban township in Johannesburg, South Africa, which is estimated to have a population in excess of one million residents (City of Johannesburg, 2010), which includes approximately 191,000 children aged 10–19 years.

Sample

Eighty participants were purposively sampled into three groups: parents ($n = 23$) from Soweto who had adolescent children aged 16–18 years, counsellors ($n = 22$) working with adolescents and adolescent males ($n = 20$) and females ($n = 15$) aged 16–18 years who were from Soweto.

Parents

Two female-only FGDs and one male-only FGD were conducted with parents recruited via HIV South Africa (HIVSA). HIVSA is an organization in Soweto that offers comprehensive therapeutic care to those individuals and their families infected with and affected by HIV/AIDS. HIVSA staff contacted participants via telephone to participate in the study.

Counsellors

Two mixed-gender FGDs were performed with voluntary counselling and testing (VCT) of HIV counsellors. Permission was obtained from supervisors of seven Soweto centres conducting VCT. Study staff contacted VCT counsellors who worked specifically with adolescents to participate.

Adolescents

Two female-only and two male-only FGDs were held with 16–18-year-old adolescents. Adolescents were recruited via the PHRU and HIVSA. HIVSA runs programmes within schools in Soweto to inform learners about VCT. HIVSA staff informed interested learners about the study and contacted them via telephone about participation. In addition, a list of interested participants from PHRU was obtained from Kganya Motsha Adolescent Center (KMAC), which provides reproductive health and VCT for 14–19-year-old adolescents. Study staff invited the participants via telephone.

Procedures

Focus-group discussions

FGDs were conducted with a semistructured interview guide in the local languages by trained facilitators. There were 8–12 participants per FGD. Facilitation of adolescent FGDs was gender-matched. FGDs lasted two–three hours.

FGD questions were open-ended to elicit discussions around adolescent sexual behaviours and practices with specific prompts for HIV risk behaviours. FGD topics were guided by the work experience of the research team (paediatrician, nurse, counsellors, social science researcher, clinical psychologist and social workers) who work with adolescents. The main topics were informed by the ecological systems theory, which emphasizes the different systems that influence adolescent decision-making about sex (Table 1).

Table 1. Topics for focus-group discussion guides.

Adolescent group and parent group	Counsellor group
Romantic and sexual relationships among adolescents	Adolescents having romantic relationships
Pregnancy	Challenges in working with adolescents? (probes include pregnancy and transactional sex)
Experimentation during adolescence	Risky/unsafe behaviors amongst adolescents
Condom use amongst adolescents	Adolescents and their use of condoms

Ethical approval was obtained from the University of the Witwatersrand, Johannesburg, South Africa and Duke University, Durham, North Carolina in the United States. Participants were reimbursed ZAR50 (~US$7) for their transport and time. Participants younger than 18 years provided written informed assent with written parental consent. Written informed consent was required for participants aged 18 years and older. Adolescent participants were referred to KMAC when further care was necessary.

Data analysis

FGDs were audiorecorded, transcribed verbatim and translated into English. Data were analysed using MAXQDA, a qualitative data analysis program (Verbi, 1989–2010). Grounded theory-guided data analysis was used, whereby constant comparison of data arising from FGDs was performed to identify common and divergent themes and to determine the interrelationships between the identified themes (Walker & Myrick, 2006). First, a primary data analyst entered a process of data immersion, whereby transcripts were read and re-read to gain an overall understanding for the data. Initial coding involved an open coding method, whereby a line-by-line analysis was conducted to assign text to codes. After the first two transcripts had been coded, a second analyst worked with the primary analyst to discuss codes arising from the data and to refine the coding schema. Following open coding, the data analysts entered into a process of axial coding to understand the relationship between the codes. Codes were then grouped according to themes. Themes related to perceptions about sexual behaviours and attitudes of adolescents living in Soweto were specifically identified. Findings were validated with participants as well as the adult and adolescent community advisory boards at the PHRU.

Results

The age range for parents was 30–66 years, for counsellors 19–45 years and for adolescents 16–18 years. All counsellors except one (with a degree in counselling) had basic "lay" counselling training. Work experience as counsellors ranged from one to eight years.

There were eight key themes related to adolescent sexuality and perceived attitudes towards relationships. Five themes were common to all participant groupings (parents, counsellors and adolescents): (1) dating during adolescence, (2) adolescent females dating older males, (3) condom use among adolescents, (4) pregnancy and (5) homosexuality. (6) Sex as a regular and important activity among adolescents and (7) group sex practices among adolescents emerged as themes from adolescent and counsellor FGDs. Lastly (8), the role of the media as an influence on adolescent sexuality was common to adolescent and parent groups.

Theme 1: dating during adolescence

Male and female adolescent participants perceived dating as a means to have a partner to spend time with, to talk to and to do homework with. Female adolescents seemed to value these aspects of relationships more by associating them with their own self-esteem. One male adolescent believed that adolescent females pressured adolescent males into relationships; another believed that females committed easily to relationships, so that males found it difficult to end relationships. Adolescent males differentiated between "being in love" and "real love", while a counsellor said the following:

> They [young females] fall in love with the partner but the partner is not in love with them.

Although parent participants were aware that their children were involved in relationships, they wished for their children to complete their schooling before entering romantic relationships.

Theme 2: adolescent females dating older males

Young females were perceived to date older males to: transact sex for money, please their friends, gain higher status among peers and because older males were regarded as being more mature.

Adolescents, parents and counsellors perceived poverty to be the main reason that adolescent females had relationships with older males. Older males were perceived to provide adolescent females with the necessary material means to support themselves and their families with basic necessities such as food and, in other instances, clothes, transport and pocket money. Counsellors reported conflicted feelings when working with adolescent females without food security who engage in transactional sex, because the emotional support they could offer them as counsellors could not address the more urgent financial needs. Counsellors believed that some parents did not question or want to know how their daughters had received the money. In other situations, female adolescents would hide the truth about their source of money from their parents. According to one counsellor, young females were vulnerable to HIV and pregnancy because females would be less likely to advocate for condom use in their relationships with older males.

Some adolescent females dated older males because they were thought to be more mature. Adolescent female participants felt that they matured faster than males of their own age and believed that older males would be at the appropriate maturity level.

Theme 3: perceived condom use among adolescents

All groups believed that sexually active adolescents were not using condoms during sexual acts. Adolescent male and female participants agreed that condoms were perceived as "not cool". Parents and adolescents perceived that male adolescents were not using condoms because they were thought to impact negatively on sexual pleasure for adolescents. A female adolescent participant stated that sex with a condom could be more painful. Some female adolescents felt that the female condom could be made more accessible for young females to use. A female parent believed that adolescents were not using condoms because adolescents perceived condoms to delay sexual gratification and because not using a condom was a way of proving their trust for their partner. Using a condom in a relationship was perceived to be a sign that the person initiating condom use was HIV-infected, and males who used condoms were regarded as homosexual. An adolescent male stated that condoms could be used to protect against HIV and preventing pregnancy. A counsellor mentioned the following:

> They know each other for three weeks then they trust each other to do it [sexual intercourse] without a condom.

Theme 4: pregnancy

All groups raised concerns and possible explanation for the perceived high prevalence of teenage pregnancy. The first concern was about adolescent females planning pregnancies to

access the South African government child support grant. For some adolescent females, the grant was their only income. Parents and adolescents blamed the government for encouraging adolescent females to become pregnant to access the grant income. An adolescent male participant was concerned that adolescent females become pregnant to maintain relationships with their partners. The term *ukuqinisa uthando* (to make the relationship stronger) was used. Finally, adolescents believed that peer pressure influenced pregnancy intention: pregnancy at a young age is now normalized as fashionable and as the "in thing". Counsellors spoke about pregnancy within the context of intergenerational relationships and the lack of condom use among adolescents.

Theme 5: views about homosexuality

All groups agreed that adolescents who are openly or suspected to be homosexual are stigmatized by the community. Parent participants were influenced by religious beliefs and dismissed homosexuality as a behavioural problem learned "outside their homes" but modifiable through counselling. Some adolescent participants, while recognizing that their parents were influenced by religious beliefs and the generation gap, believed that parents and society should become open to same-sex relationships. An adolescent female said the following:

> As much as they accept guys being gays they should do the same with girls.

In contrast, some male adolescent participants regarded homosexuality as a disgrace to families and believed that homosexual relationships should be kept hidden. Counsellors reported that males and females in same-sex relationships were "starting to come out" and beginning to test for HIV.

Theme 6: sex as a regular and important activity among adolescents

Adolescents were perceived to engage in sexual activity for various reasons: sex for fun and recreation, as a form of identity and as a means of strengthening and maintaining relationships. Adolescent participants perceived sex to be a pleasurable activity that their peers engaged in for "fun, as a hobby and even as a stress relief". Engaging in sexual activity during adolescence was also a means of gaining higher status among peers: the "cool girl" or "top dog".

An adolescent female stated how sexual activity was not always about love, but merely about the physical act itself without any emotional involvement. Counsellors and adolescents spoke about sexual activity as the natural progression of intimacy to strengthen and maintain a romantic relationship. A male adolescent spoke about sexual activity being the only "intimate" act "to make a couple feel closer".

Theme 7: group sex

Adolescents and counsellors reported group sex events, commonly organized by adolescents, even though it was kept covert. A counsellor mentioned reports heard during counselling sessions with adolescents where adolescents organize parties with the purpose of engaging in group sexual activity. An adolescent female participant mentioned that adolescents seemed to attend these events because sex was a free activity. An adolescent male

participant spoke about his own experiences: how, in contrast to previous generations, parties in the current era skipped talk and refreshments for sex and drugs such as marijuana instead.

There was further mention of group sex for couples, or couple partner-swapping. The term *ocil*, an informal word coined by adolescents, was used by female adolescent participants to describe a group sex event where couples meet intentionally to engage in sexual activity to swap partners for that particular time. They would arrive at the designated venue in a taxi which they called a "love boat".

> We know when we get to that pool party, we gonna start grooving [having sex]. You are with your partner. Come midnight, then you swap partners until you are all tired (adolescent female participant).

Drugs and alcohol were mentioned by male adolescents as being part of the group sex scene at parties. One male adolescent recognized that males would use drugs and alcohol at these parties to manipulate young females into risky sexual behaviours which these females would not otherwise partake in.

Theme 8: the media as a negative influence

Parents felt that television programming and music were perceived to normalize vulgar behaviour by portraying adolescent alcohol use, drugs and pornography. Parents blamed soap operas filmed in the United States for encouraging relationships that would otherwise be taboo in an African setting; for instance, a male having sex with his mother-in-law. Some parent participants were concerned about the influence of the media on adolescent males because the media was perceived to perpetuate the idea that having money and "girls" was important. With young females, the media marketed the notion of being "sexy", especially through choice of attire. Adolescent males mentioned that music could be a positive influence, too, as a form of entertainment.

Discussion

Adolescent sexual behaviours and attitudes are perceived to be influenced at multiple levels. Individual-level influences are evidenced by girls selecting older romantic partners, having sex to please their partners and as a stress relief. Family circumstances may motivate adolescents to transact sex for material gain. Partners influence individual behaviour where sex is used to strengthen and maintain relationships. Adolescents may make risky sexual health decisions to be accepted by peers. Homosexual relationships are stigmatized in communities. Lastly, macro influences are perceived to influence adolescent sexual decision-making, such as the myth of becoming pregnant to access a government grant and the negative influences of the media industry.

Our study demonstrates the emergence of a previously unreported adolescent risky sexual behaviour in South Africa, that is, group sex practices. Both group sex and couple sexual partner-swapping are described at events (parties) orchestrated for multiple sexual interactions within a short space of time. The purpose of these parties is linked with experimentation, "free" entertainment and to please partners and peers.

Adolescent group sex has been described in the United States. One qualitative study described a phenomenon called "running a train", sexual intercourse involving multiple males and one female which was perceived as recreational for males but possibly

coercive for females. In common with our study, alcohol and drug use were co-reported but involved the participation of multiple males and females (Rothman, Decker, Reed, Raj, & Silverman, 2008).

Group sex activity implies multiple sexual partners in rapid sequence within a short time such as an evening. Given the negative perceptions of condom use found in this study, it is unlikely that individuals engaging in group sex assert condom use in these situations. Taken together, this raises the risk profile of these individuals because multiple partnerships and unprotected sex are reported risk factors for HIV and other STIs among young people (Eaton, Flisher, & Aaro, 2003; Mathews et al., 2009).

Transactional sex is a risk behaviour associated with HIV acquisition, gender-based violence, substance use and socioeconomic disadvantage in women (Dunkle, Jewkes, Brown, Gray, McIntyre, & Harlow, 2004). At least two themes in this study reflect how the need for money may drive risky sexual behaviours in this urban setting of poverty. These include girls choosing to date older boyfriends to transact sex for money and the persisting community perception that girls plan pregnancies to access child support grants. Despite the negative portrayal and consequences of this phenomenon, there are situations where transactional sex is encouraged and accepted by parents and, in fact, viewed positively by females who transact sex for material gains (Wamoyi, Fenwick, Urassa, Zaba, & Stones, 2010). In our study, there was a continued perception that girls engage in transactional sex which was also age-disparate, a combination of risk behaviours noted previously as creating hypervulnerability to HIV infection (Leclerc-Madlala, 2008). Higher HIV prevalence among older men in South Africa is of concern for adolescent females who engage in this set of behaviours (Shisana et al., 2009). Young females are less likely to assert condom use if it may jeopardize their material gain (Wamoyi, Wight, Plummer, Mshana, & Ross, 2010).

The idea that girls plan pregnancies to gain access to welfare persisted among our participants, although there is no evidence to support the idea (Moultrie & McGrath, 2007). However, providing money to young girls is an innovative intervention with proven short-term efficacy: a controlled study in Malawi showed that monthly financial incentives paid to young girls to remain in school resulted in significant reductions in teenage pregnancy and self-reported sexual activity (Baird, Chirwa, McIntosh, & Ozler, 2010).

The role of sex to strengthen or maintain a relationship is well documented (Bayley, 2003; Foreman, 2003; Hillier, Dempsey, & Harrison, 1999; Marston & King, 2006; Nuko, Chiduo, Mwaluko, & Urassa, 2001; Nyanzi, Pool, & Kinsman, 2001; Varga, 2000). Young females in particular engage in sexual relationships with males as a means of maintaining the relationship. These perceptions belie underlying gender "power" that males have about whether or not to maintain the relationship (Bayley, 2003).

In this study, adolescents cited sex for pleasure and material gain as a means of identity and to maintain/strengthen relationships. Sex for "fun" and prior to marriage has even been described by adolescent boys in Malaysia, where premarital sex is greatly frowned upon and where sex is seen within the context of marriage (Low, Ng, Fadzil, & Ang, 2007). Adolescents will engage in sexual activity even in strict conservative societies.

This study again demonstrated that peer-level influences were perceived to affect decisions made by adolescents regarding whether or not to engage in sexual activity. Adolescents were perceived to engage in sexual activity to please friends and as a means to gain higher social status. Research shows that if peers advocate virginity then adolescents are likely to abstain from sex, but if adolescents believe that their peers are engaging in sexual activity, then they are also likely to initiate sexual activity (Buhi & Goodson, 2007).

Peer groups were also perceived to influence child-bearing decisions, where a girl becomes pregnant to gain acceptance by peers.

Media influences on sexual behaviour of adolescents and parental apprehension about its negative influence existed. A national longitudinal study conducted with adolescents in the United States showed that watching sex on television (conversations about sex and visual depictions of sexual activity) was associated with early sexual activity and non-coital activities in adolescents aged 12–17 years (Collins et al., 2004). They found that talks about sex and visual sex depictions was associated equally with initiation and increased frequency of sexual behaviour.

The issue of condom use is complex within the developing world, particularly South Africa, where knowledge regarding HIV is disproportionate to condom use (Marston & King, 2006). Intervention programmes cannot assume that an isolated focus on male condom use will lead to its increased use. Negative perceptions of condoms are common (Marston & King, 2006) and continue despite media campaigns around the efficacy of using condoms. The use of the female condom is an area requiring further attention.

Gay and lesbian youth in South Africa are vulnerable to societal prejudice and inner turmoil (Butler & Astbury, 2008). Male-to-male sexual experiences are identified as a risk for HIV infection that requires more attention. Female-to-female sexual relationships require even more attention in the South African research and prevention context.

The main strength of this study is that it was conducted among a variety of participants from multiple perspectives. However, generalizability of our findings may be limited. Some participants were recruited from programmes serving people affected by or infected with HIV, where they may have been exposed to HIV-related messages that altered their thoughts and behaviours from those of the general population. Furthermore, social desirability bias may have resulted in over- or underreported perspectives as a result of the FGD context. Lastly, the long nature of the FGDs is acknowledged as possibly being a source of fatigue to the participants by limiting their responses, but we attempted to address this by ensuring frequent breaks with refreshments during the interviews.

Conclusion

Risky sexual behaviours are perceived to be continuing among adolescents. A concerning emergent phenomenon among adolescents is group sex practices. Preventative interventions should be at multiple levels to address context-specific influences. Counselling for adolescents should be tailored, given differential risk profiles. Group sex among adolescents is a topic that requires investigation within the South African context to determine its frequency and effect on adolescent risk for HIV, STIs and pregnancy.

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Appendix R: Multiple levels of influence in predicting sexual activity and condom use amongst adolescent in Soweto, Johannesburg, South Africa

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Multiple Levels of Influence in Predicting Sexual Activity and Condom Use Among Adolescents in Soweto, Johannesburg, South Africa

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Multiple Levels of Influence in Predicting Sexual Activity and Condom Use Among Adolescents in Soweto, Johannesburg, South Africa

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HIV prevalence amongst 15–19 year olds in South Africa is 6.7% and 2.5% in females and males respectively. Using an interviewer-administered cross-sectional survey, we examined individual, interpersonal, family and community factors associated with sexual activity and condom use among 506 adolescents 16–18 years from Soweto, Johannesburg. The sample was mainly female (59%, n = 298). Using multivariate logistic regression, males (OR: *2.6, CI: 1.4–4.8), older partners* (OR: *4.5, CI: 1.5–13.8), hazardous alcohol use* (OR: *2.4, CI: 1.1–5.2) and permissive attitudes about sex* (OR: *1.6, CI: 1.3–2.1) predicted sexual activity. A first partner*

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at a younger age (OR: *1.2, CI: 1.1–1.4) and having older partners* (OR: *0.29, CI: 0.13–0.68) predicted lack of condom use. For females, increasing age* (OR: *2.7 CI:1.4-5.5), older partners* (OR: *3.3 CI:1.4-7.6), and permissive attitudes about sex* (OR: *1.6 CI:1.2–2.1) predicted sexual activity. Multiple levels have to be addressed in developing HIV prevention programs for adolescents in Soweto.*

KEYWORDS HIV, sexual activity, condom use, adolescents, ecological systems theory, Soweto

INTRODUCTION

South Africa has the highest burden of HIV worldwide; 10.9% of the population is infected with HIV (Shisana et al., 2009). The prevalence of HIV in South Africa is highest among 15- to 24-year-olds, with females disproportionately affected (Shisana et al., 2009). HIV prevalence among adolescents aged 15 to 19 years in South Africa is estimated to be 6.7% among females and 2.5% among males (Shisana et al., 2009).

Risk factors for HIV among adolescents in South Africa include gender (Shisana et al., 2009; Wilson, Wright, Safrit, & Rudy, 2010), age (Shisana et al., 2009), substance use (Shisana et al., 2009), failure to use condom prophylaxis (Maticka-Tyndale, 2012), early sexual debut (Tenkorang, Rajulton, & Maticka-Tyndale, 2009), intergenerational sex (Wilson et al., 2010), gender inequality (Speizer et al., 2009), and low relationship power among females (Pettifor, Measham, Rees, & Padian, 2004). Early sexual debut is of concern because it is associated with frequent sexual intercourse, irregular contraceptive use, more sexual partners, and unplanned pregnancies (Koenig et al., 2003; Pettifor, O'Brien, Macphail, Miller, & Rees, 2009). Sexual violence, including child abuse and forced sex, increases risk for HIV among female adolescents, because of its contribution to early sexual experiences among young females (Pettifor, Macphail, Rees, & Cohen, 2008; Pettifor et al., 2009). Intergenerational sex between older men and younger females contributes to early sexual debut and increases the HIV epidemic among 15- to 24-year-old females (Pettifor et al., 2009; Shisana et al., 2009).

Soweto is an urban African township in Gauteng province, South Africa. The prevalence of HIV in Gauteng is 15.2% among 15- to 49-year-olds (Shisana et al., 2009). The population in Soweto is estimated to be between 2.5 and 3 million people in an area of 63 km^2 (City of Joburg, 2010). Challenges facing youth in Soweto include lack of job opportunities (Statistics South Africa, 2012); high rates of school drop-out, especially among teenage girls due to pregnancy (Grant & Hallman, 2008); drug and alcohol abuse (Shisana et al., 2009); and transactional sex, which poses a risk in terms of HIV transmission (Dunkle et al., 2004).

Effective health-promoting behaviors are associated with correct and consistent condom use at every sexual act to prevent HIV and other sexually transmitted infections (Holmes, Levine, & Weaver, 2004). In South Africa, the use of condoms has historically been disproportionate to awareness and availability of condoms (Eaton, Flisher, & Aaro, 2003). The past decade has seen a dramatic increase in the number of young South Africans reporting condom use at last sexual intercourse (Dinkelman, Lam, & Leibbrandt, 2007; Hendriksen, Pettifor, Lee, Coates, & Rees, 2007; Shisana et al., 2009; Simbayi, Chauveau, & Shisana, 2004). In a national survey conducted in 2008 (Shisana et al., 2009), 92.1% of 12- to 18-year-old males and 83.9% of females in the same age group indicated condom use at last sexual intercourse (Chimbindi, McGarth, Herbst, Tint, & Newell, 2010a; Jama Shai, Jewkes, Levin, Dunkle, & Nduna, 2010; Moyo, Levandowski, MacPhail, Rees, & Pettifor, 2008). Correct and consistent condom use has to be improved even more rapidly for more dramatic effects on the HIV incident rates among young South Africans.

Adolescent sexuality is influenced at multiple levels. Bronfenbrenner's ecological systems theory (Bronfenbrenner, 1989) explains sexual risk in terms of: the individual (microsystem), family, peers and romantic relationships (mesosystem), the larger social systems, such as the community, which dictate social norms and expectations (exosystem), and, last, the rules that govern society, such as legislation regarding adolescents (macrosystem), which provides a conceptual framework to examine HIV risk among adolescents in Soweto. To develop appropriate interventions for the Soweto adolescent population, it is critical to understand context-specific factors that influence sexual activity (vaginal and/or anal sex) and condom use. The influence of individual level psychological factors is often neglected (Nduna, Jewkes, Dunkle, Shai, & Colman, 2010; Puffer et al., 2010). Depression, for example, may be related to HIV risk. The prevalence of depressive symptoms among a cohort of 15- to 26-year-old South Africans showed that 21% of females and 13.6% of males had depressive symptoms and that depressive symptoms were indicative of a failure to use condoms (Nduna et al., 2010).

Parents are important in educating their children about sexuality and health-promoting behaviors (Njoroge, Olsson, Pertet, & Ahlberg, 2010). Parent–adolescent communication is influenced by frequency of communication, content of communication, parent communication style, gender of parent, timing of communication, and overall relationship between parent and adolescent (Dilorio, Pluhar, & Belcher, 2003). Despite mixed findings regarding the effects of parent–adolescent communication, the parent-adolescent relationship is an opportunity for parents to engage their adolescents in increasing health-promoting behaviors (DiLorio, Dudley, Soet, & McCarty, 2004; Schouten, van den Putte, Pasmans, & Meeuwesen, 2007).

The aim of the study was to examine whether individual-, interpersonal-, and community-level factors among adolescents in Soweto were associated with sexual activity and condom use.

METHODS

Subjects and Data Collection Procedures

A stratified sample of adolescents was selected from Soweto during October 2008 to March 2009. Soweto consists of about 40 townships/areas. Each area was a stratum. Fifteen adolescents were purposively selected per area with the number of participants divided into a 60:40 split (nine girls and five boys). We oversampled adolescent females. Females in this region are disproportionately affected by HIV; elsewhere in the world, males, particularly men who have sex with men, are at elevated risk compared with females. Field workers approached potential participants via schools, around malls, youth organizations, and shops. Approximately 852 potential participants were approached; 152 (18%) were not interested in participating and 193 (23%) did not arrive for appointments or gave incorrect telephone numbers. One subject was removed from analysis due to an extensive amount of missing data.

Participants completed a 90-minute interviewer-administered questionnaire at the Perinatal HIV Research Unit (PHRU), a research unit affiliated with the University of the Witwatersrand and situated at Chris Hani Baragwanath Hospital in Soweto. Consent was required for participation. Participants younger than 18 years required parent consent and the adolescent's assent. Participants were reimbursed ZAR50 (~$7) to cover their transport costs. The institutional review boards at the University of the Witwatersrand and Duke University approved study procedures.

Outcome Measures

Outcome measures were linked with the levels of the ecological systems model (Table 1).

TABLE 1 Ecological Model Mechanisms

Ecological level	Variables
Individual level	Demographic characteristics (age, gender)
	Alcohol/drug use or abuse
	Depression
	Self-esteem
Dyad	Age group of partners
	Pressure to have sex
	Experience of partner violence
Family	Parent adolescent communication
Community/peers	Attitudes about sex
	Violence experienced in the community
Institution	Adaptation of an HIV prevention program: CDC risk reduction model

Demographic Information

Gender, age, ethnicity, grade in school, family structure, parent/guardian information, household structure, and household composition were included.

Sexual Behavior

The following items were assessed: sexual orientation (heterosexual/straight, homosexual/gay, bisexual, undecided/don't know); age of first partner (boyfriend/girlfriend); age ranges of previous and current partners (16–21, 22–27, 28–33, 34–40, and over 40); pressure from boyfriends/girlfriends to engage in sex (no pressure at all, not much pressure, some pressure, a lot of pressure); ever had vaginal and/or anal sexual activity (yes/no); and how often a condom was used at sex in the past six months (always, sometimes, never). For condom use, only subjects who reported sexual activity were considered. These were split into "Consistent" and "Inconsistent" groups, with the "Consistent" group defined as "Always" using condoms in the past 6 months. For age ranges of previous and current partners, participants selected one option. Participants responded based on only the current partner; those who did not have a current partner based the response on a previous partner. The ages were dichomotized into "16–21" and ">21" years because there were fewer responses among those with partners older than 21 years. Pressure to engage in sex was grouped into "No pressure" and "Pressure," with "Pressure" defined as "Some pressure" or "A lot of pressure."

Attitudes About Sex

Common attitudes toward sex and condom use (Hendriksen et al., 2007) were measured with a nine-item scale, endorsed as agree or disagree (e.g., "Using condoms is a sign of not trusting your partner"). The scale was a sum and then a median was determined. This scale demonstrated moderate internal consistency ($\alpha = .62$). This was the best combination of items based on Cronbach's α measure. The median was used as a cutoff to categorize the "Attitudes about sex." The Cronbach's α score is low, and this may not be the best measure for internal consistency; however, the convention in this nature of studies is to test internal reliability using Cronbach's α.

Substance Use

Hazardous alcohol use and illegal drug use in the past 6 months were assessed: "Have you been drunk in the past six months where you passed out?" and "Have you ever, even once, used any drug just to get high?"

Mental Health Factors

The Children's Depression Inventory (CDI) (Kovacs, 1992) assessed depressive symptoms in the past 2 weeks (e.g., depressed mood, hedonic capacity, vegetative functions, self-evaluation, and interpersonal behaviors): each of

27 items was scored from 0 to 2. This scale demonstrated adequate internal consistency ($\alpha = .79$).

The Rosenberg Self Esteem Scale (Rosenberg, 1965) assessed self-esteem. The scale consists of 10 items with a 4-point Likert response format (strongly agree, agree, disagree, and strongly disagree) and demonstrated adequate internal consistency ($\alpha = .73$). Self-esteem was categorized as: Low < 15; Normal ≥ 15 ≤ 25; High > 25.

Parent/Caregiver Relationship

The Parent Adolescent Communication Scale (PACS) (DiClemente et al., 2001) assessed frequency of communication on a 4-point Likert scale (never, rarely, sometimes, and often) between parent and adolescent in the past 6 months regarding five specific items: sex-related issues, how to use condoms, STIs, HIV/AIDS, and pregnancy/getting someone pregnant. This scale demonstrated adequate internal consistency ($\alpha = .79$). PACS was dichotomized into "high" or "low" on the basis of the median split.

Experience and Perpetration of Violence

Participants were asked about experiences of violence (Vrana & Lauterbach, 1994): "Have you ever experienced an act of violence?" "Have you ever been hit, slapped or physically hurt on purpose by a boyfriend/girlfriend?" "Have you ever had sexual intercourse because someone used physical force or threatened you to have sex with him/her?" Item responses were "yes" and "no."

Statistical Analyses

Descriptive statistics were determined for demographic and predictor variables. To identify factors predictive of sexual activity and condom use, we modeled the probability of those who responded "yes" to these items.

Multivariate logistic regression analyses were conducted to identify variables predictive of sexual activity and use of condoms separately. All variables were considered for entry into the multivariate model on the basis of two criteria: (a) if a variable attained a p value ≤ .1 at the univariate level and (b) if the inclusion resulted in a nonsignificant p-value in the Hosmer and Lemeshow goodness-of-fit statistic (Hosmer, 2000). The following predictor variables were retained: demographic (gender, age) sexual behavior (age at time of getting first partner, age group of previous and partners, pressure to engage in sex; attitudes about sex); substance use (hazardous alcohol use; illegal drug use); mental health (depression, self-esteem); parent–caregiver relationship (PACS); and experience of violence (ever experienced an act of violence, ever been hit, slapped or physically hurt on purpose by a boyfriend/girlfriend, ever had sexual intercourse because someone used physical force or threatened you to have sex with him/her). Additionally, predictors of sexual activity and condom use was analyzed by gender. For each model,

odds ratios (*ORs*) and their 95% confidence intervals (CIs) were determined. The Kaplan–Meier method was used to determine the time to sex debut by gender under right censoring (Kaplan & Meier, 1958). All the analyses were performed at the 5% significance level using SAS 9.2 software.

RESULTS

Demographic Information

The sample consisted of 506 adolescents aged 16 to 18 years (median is 17; interquartile range [IQR]: 16 to 18 years): 41% ($n = 208$) were male and 59% ($n = 298$) were female. Most of the sample spoke IsiZulu (50%, $n = 253$), attended school in Soweto (90%, $n = 449$), lived in brick structures such as a house or flat (90%, $n = 457$), and obtained drinking water from a tap in the home (98%, $n = 497$). A third of the sample (31%, $n = 158$) had repeated a grade at school (Table 2). The median number of people living in a household was

TABLE 2 Demographic Characteristics

Variable		*N* (%)
Median age *(IQR)*	17 (16–18)	506 (100)
Median No. of people living in household *(IQR)*	5 (4–7)	506 (100)
Median No. of rooms in household *(IQR)*	4 (4–6)	506 (100)
Gender	Male	208 (41)
	Female	298 (59)
Schooling area	In Soweto	449 (90)
	Out of Soweto	49 (10)
Schooling history	Repeated classes	158 (31)
	Not repeated	348 (69)
Parental status	Both parents alive	299 (59)
	Single parent	167 (33)
	Orphan	40 (8)
Parental marital status	Married	174 (39)
	Never married	182 (40)
	Other	95 (21)
Head of household (age bracket in years)	Female (18–60)	253 (50)
	Male (18–60)	167 (33)
	Female (>60)	62 (12)
	Male (>60)	22 (5)
Housing	Brick house or flat	423 (83)
	RDP house or flat	30 (5)
	Shack	45 (8)
Source of drinking water	Tap water in home	497 (99)
	Community tap	7 (1)
	Other	0 (0)
Sexual orientation	Heterosexual	464 (92)
	Bisexual	23 (5)
	Homosexual	8 (2)
	Undecided	23 (5)

Note. The totals may not be equal to sample size due to missing values.

five (IQR: four to seven). More than half of the sample (59%, n =299) indicated that both of their parents were alive. Half of the households were female-headed (50%; n = 253) and were mainly headed by mothers (64%, n = 163).

Half of the sample (52%, n = 262) was sexually active, whereas of those who were sexually active, 64% (n = 168) reported always using a condom. The rest never or sometimes used a condom. Most had partners aged 16 to 21 years (Table 3). Almost a third reported experiences of violence (26%, n = 133).

Logistic Regression for Sexual Activity

In univariate regression (Table 4), individual-level factors (being male, older in age, hazardous alcohol use, illegal drug use, and having low self-esteem), dyad-level factors (having a partner older than 21 years, pressure to engage in sex, and ever been hit, physically hurt by partner), and community-/peer-level factors (having permissive attitudes about sex, having experienced an act of violence) were associated with sexual activity. In multivariate logistic regression (Table 4), being male (*OR:* 2.6, CI: 1.4 to 4.8), hazardous alcohol use (*OR:* 2.4, CI: 1.1 to 5.2), having a partner older than 21 years (*OR:* 4.5, CI: 1.5 to 13.8), and having permissive attitudes toward sex (*OR:* 1.6, CI: 1.3 to 2.1) were

TABLE 3 Distribution of Sexual Predictor Variables by Gender

Variable	Males (%)	Females (%)
Median "Attitudes about sex" score *(IQR)*	11 (10–12)	10 (9–11)
Median depression score *(IQR)*	8 (5–12)	9 (6–13)
Partner's age-group		
16–21	188 (96)	223 (85)
>21	7 (4)	39 (15)
Pressure to engage in sex		
No pressure	98 (47)	161 (55)
Pressure	109 (53)	131 (45)
Hazardous alcohol use		
Yes	36 (25)	23 (15)
No	110 (75)	134 (85)
Ever used drugs to get high?		
Yes	58 (28)	28 (9)
No	150 (72)	269 (91)
Self-esteem		
High	36 (17)	60 (20)
Low	6 (3)	14 (5)
Normal	166 (80)	224 (75)
PAC		
High	83 (40)	153 (51)
Low	125 (60)	145 (49)
Experienced an act of violence?		
Yes	70 (34)	63 (21)
No	138 (66)	232 (79)
Ever hit/physically hurt by partner?		
Yes	29 (14)	58 (20)
No	178 (86)	239 (80)

TABLE 4 Predictors of Sexual Activity

	Univariate		Multivariate	
	OR (CI)	*p*	*OR* (CI)	*p*
Gender				
Male	3.2 (2.2–4.6)	<.0001	2.6 (1.4–4.8)	.002*
Female	1	1	1	1
Age (yr)				
18	3.3 (2.1–5.2)	<.0001	1.7 (0.87–3.4)	.12
17	2.1 (1.3–3.3)	.001	1.9 (0.91–3.4)	.09
16	1	1	1	1
Partner's age group				
>21	2.7 (1.3–5.4)	.0061	4.5 (1.5–13.8)	.009*
16–21	1	1	1	1
Pressure to engage in sex				
Pressure	2.1 (1.5–3.0)	<.0001	1.4 (0.8–2.5)	.2
No pressure	1	1	1	1
Attitudes about sex	2.1 (1.7–2.5)	<.0001	1.6 (1.3–2.1)	.0002*
Hazardous alcohol use				
Yes	3.0 (1.5–6.0)	.0016	2.4 (1.1–5.2)	.028*
No	1	1	1	
Illegal drug use				
Yes	3.5 (2.1–6.0)	<.0001	1.8 (0.9–3.9)	.12
No	1	1	1	1
Depression	1.01 (0.99–1.04)	.4	N/A	N/A
Self-esteem				
High	1.1 (0.7–1.7)	.68	1.4 (0.7–3.0)	.34
Low	3.2 (1.1–8.8)	.03	1.05 (0.15–7.2)	.96
Normal	1	1	1	1
PAC				
High	0.9 (0.6–1.3)	.8	N/A	N/A
Low	1	1		
Experienced an act of violence?				
Yes	1.7 (1.1–2.5)	.01	0.8 (0.4–1.4)	.4
No	1	1	1	1
Ever hit, physically hurt by a partner?				
Yes	2.0 (1.2–3.2)	.006	1.1 (0.5–2.2)	.9
No	1	1	1	1

Note. *OR* = odds ratio; CI = confidence interval; "1" refers to the reference category.
*$p < .05$.

associated with sexual activity (vaginal and/or anal sex). In the final model, the mental health factor, self-esteem was not a significant predictor of sexual activity. In addition, older age and experience of violence were not significantly associated with sexual activity.

Predictors of sexual activity in the multivariate model (Table 5) by gender showed that for females sexual activity was significantly associated with increasing age (*OR:* 2.7, CI: 1.4 to 5.5), partners older than 21 years (*OR:* 3.3, CI: 1.4 to 7.6), and permissive attitudes about sex (*OR:* 1.6, CI: 1.2 to 2.1). Sexual activity for males was significantly associated with increasing

TABLE 5 Predictors of Sexual Activity by Gender

	Male				Female			
	Univariate		Multivariate		Univariate		Multivariate	
	OR (CI)	*p*	*OR* (CI)	*p*	*OR* (CI)	*p*	*OR* (CI)	*p*
Age (yr)								
18	2.8 (1.35–5.8)	.006	2.3 (0.8–6.3)	.12	4.0 (2.2–7.2)	<.0001	2.7 (1.4–5.5)	.005*
17	2.7 (1.3–5.6)	.008	3.4 (1.1–10.0)	.027*	1.7 (0.9–3.2)	0.086	1.5 (0.8–3.1)	0.24
16	1	1	1	1	1	1	1	1
Partner's age group								
>21	2.4 (0.28–20.6)	.4	N/A		4.4 (2.0–9.4)	0.0002	3.3 (1.4–7.6)	.005*
16–21	1	1			1	1	1	1
Pressure to engage in sex								
Pressure	2.2 (1.2–4.0)	.01	1.4 (0.6–3.4)	.44	1.9 (1.2–3.0)	0.008	1.3 (0.8–2.3)	0.34
No pressure	1	1	1	1	1	1	1	1
Attitudes about sex	1.8 (1.4–2.4)	<.0001	1.7 (1.2–2.5)	.003*	2.0 (1.6–2.6)	<.0001	1.6 (1.2–2.1)	.001*
Hazardous alcohol use								
Yes	4.5 (1.3–15.8)	.02	4.0 (1.1–14.7)	.04*	1.9 (0.8–4.7)	0.16	N/A	
No	1	1	1	1	1	1		
Illegal drug use								
Yes	2.9 (1.3–6.1)	.007	1.8 (0.7–4.9)	.24	2.5 (1.1–5.6)	.023	0.8 (0.3–2.2)	.6
No	1	1		1	1	1	1	1
Depression	1.01 (0.96–1.1)	.7	N/A		1.03 (1.0–1.07)	.08	0.97 (0.9–1.02)	.29
Self-esteem								
High	0.9 (0.4–2.0)	.87	N/A		1.3 (0.7–2.3)	.38	1.3 (0.6–2.7)	.45
Low	2.3 (0.3–20.6)	.44			6.2 (1.7–23.0)	.006	5.6 (0.97–33.0)	.055
Normal	1	1			1	1	1	1
PAC								
High	1.1 (0.6–2.1)	.68	N/A		0.9 (0.6–1.5)	.7	N/A	
Low	1	1			1	1		

(*Continued*)

TABLE 5 (Continued)

	Male				Female			
	Univariate		Multivariate		Univariate		Multivariate	
	OR (CI)	*p*	*OR* (CI)	*p*	*OR* (CI)	*p*	*OR* (CI)	*p*
Ever hit/physically hurt by partner?								
Yes	1.5 (0.6–3.8)	.37	N/A		2.8 (1.5–5.0)	.0007	1.7 (0.8–3.4)	.1
No	1	1			1	1	1	1

Note. *OR* = odds ratio; CI = confidence interval; "1" refers to the reference category.
*$p < .05$.

TABLE 6 Predictors of Condom Use by Gender

	Male				Female			
	Univariate		Multivariate		Univariate		Multivariate	
	OR (CI)	*p*	*OR* (CI)	*p*	*OR* (CI)	*p*	*OR* (CI)	*p*
Age (yr)								
18	0.99 (0.36–2.7)	.99	N/A		1.5 (0.5–4.1)	.43	N/A	
17	0.89 (0.32–2.5)	.82			1.2 (0.4–3.7)	.73		
16	1	1			1	1		
Age of first partner	1.2 (1.005–1.4)	.044	1.2 (1.0–1.5)	.06	1.3 (1.01–1.7)	.043	1.4 (1.01–1.9)	.04*
Partner's age group								
>21	0.2 (0.03–1.03)	.07	0.2 (0.03–1.1)	.07	0.45 (0.2–1.1)	.07	0.3 (0.1–0.9)	.03*
16–21	1	1	1	1	1	1	1	1
Pressure to engage in sex								
Pressure	1.3 (0.6–2.8)	.47	N/A		0.29 (0.1–0.7)	.004	0.4 (0.1–1.1)	.04*
No pressure	1	1			1	1	1	1
Attitudes about sex	0.8 (0.7–1.05)	.12	N/A		1.0 (0.7–1.4)	.998	N/A	
Hazardous alcohol use								
Yes	0.7 (0.3–1.8)	.47	N/A		0.7 (0.2–2.3)	.52	N/A	
No	1	1			1	1		
Illegal drug use								
Yes	0.9 (0.4–1.9)	.73	N/A		0.74 (0.3–2.1)	.57	N/A	
No	1	1			1	1		
Depression	0.9 (0.88–1.0)	.051	0.9 (0.9–1.0)	.08	0.9 (0.88–0.98)	.004	0.98 (0.9–1.1)	.6
Self-esteem								
High	1.1 (0.4–3.2)	.81	N/A		2.7 (0.8–8.6)	.1	1.9 (0.5–6.9)	.4
Low	0.6 (0.1–3.8)	.59			0.3 (0.09–1.2)	.09	1.3 (0.2–7.9)	.7
Normal	1	1			1	1	1	1
PAC								
High	0.8 (0.4–1.8)	.62	N/A		2.4 (1.1–5.4)	.031	2.2 (0.8–6.1)	.1
Low	1	1			1	1	1	1

(*Continued*)

TABLE 6 (Continued)

	Male				Female			
	Univariate		Multivariate		Univariate		Multivariate	
	OR (CI)	*p*	*OR* (CI)	*p*	*OR* (CI)	*p*	*OR* (CI)	*p*
Experienced an act of violence								
Yes	1.6 (0.7–3.9)	.26	N/A		0.51 (0.2–1.2)	.11	N/A	
No	1	1			1	1		
Ever hit/physically hurt by partner								
Yes	0.4 (0.1–1.03)	.06	0.5 (0.1–2.1)	.3	0.51 (0.2–1.2)	.11	N/A	
No	1	1	1	1	1	1		
Ever physically coerced into sex?								
Yes	0.2 (0.06–0.9)	.03	0.5 (0.2–1.5)	.2	0.3 (0.1–0.97)	.045	0.3 (0.06–1.3)	.1
No	1	1	1	1	1	1	1	1

Note. *OR* = odds ratio; CI = confidence interval; "1" refers to the reference category.
*$p < .05$.

age (*OR:* 3.4, CI: 1.1 to 10.0), hazardous alcohol use (*OR:* 4.0, CI: 1.1 to 14.7), and permissive attitudes about sex (*OR:* 1.7, CI: 1.2 to 2.5).

Logistic Regression for Condom Use

In univariate regression, individual-level factors (increasing age at the time of having a first partner, decreasing depressive symptoms, and low self-esteem), dyad-level factors (having partners older than 21 years), and community-level factors (experiences of violence) were significant. In the multivariate model, increasing age at time of having a first boyfriend/girlfriend (*OR:* 1.2, CI: 1.1 to 1.4) was a significant predictor of condom use, while those with partners older than 21 years were less likely to use them (*OR:* 0.29, CI: 0.13 to 0.68).

Predictors of condom use in the multivariate model by gender (Table 6) showed that for females, condom use was significantly associated with age of first partner (*OR:* 1.4, CI: 1.01 to 1.9), while those who had partners older than 21 years (*OR:* 0.3, CI: 0.1 to 0.9) were less likely to use condoms. There were no significant predictors of condom use for males in the multivariate model.

DISCUSSION

The study makes a unique contribution by explaining sexual activity and condom use in terms of the ecological systems theory. More than half of the adolescents in this sample reported having engaged in vaginal or anal intercourse. This finding is congruent with data from the South African Demographic and Health Survey (2003) in which 42% of women and 63% of men reported sexual intercourse by age 18 (Department of Health, 2007). Prior research indicates that the average age of sex debut for males is significantly earlier than for females (Shisana et al., 2009), a pattern replicated in this sample. On average, males reported first sexual experience before 16 and females reported first sexual experience before 17, although age at sex debut for both genders was later than national findings (Shisana et al., 2009). Given the association between early sex debut and HIV risk factors such as early pregnancy (Speizer et al., 2009), causal sexual partners (Harrison, Cleland, Gouws, & Frohlich, 2005), and more sexual partners (Harrison, Cleland, & Frohlich, 2008), the later average debut reported in this sample likely serves as a protective factor against some aspects of HIV risk behavior.

Despite this positive finding, a third of sexually active adolescents reported inconsistent or no condom use. Recent national data showed a significant and encouraging gain of condom use among 15- to 24-year-olds (Shisana et al., 2009). National data reported male and female condom use at last sex at 87% and 73%, respectively. Although condom use among the general population of young South Africans has increased significantly since

2002, condom use continues to be low in the Gauteng province where Soweto is located (Shisana et al., 2009). Soweto adolescents therefore remain at greater risk for HIV infection.

Consistent with expectations, multiple levels of influence were associated with sexual activity and condom use, including individual, interpersonal, and community (normative attitudes) factors. The findings show that gender, having partners older than 21 years of age, hazardous alcohol use, and permissive attitudes about sex were associated with sexual activity, while risky sexual behavior through inconsistent or no condom use was associated with having had a first boyfriend or girlfriend at a younger age and having boyfriends or girlfriends older than 21 years. For females in particular, having an older partner was associated with both a greater likelihood of engaging in sexual activity and inconsistent condom use once sexually active.

Young girls continue to be at increased risk for HIV infection, as relationships with older partners is associated with early sexual debut (Speizer et al., 2009) and consequently a lack of condom use at first sex (Leclerc-Madlala, 2008). Research in sub-Saharan Africa shows that young women are less likely to negotiate condom use with older partners, thereby increasing risk for HIV infection (Cockcroft et al., 2010; Leclerc-Madlala, 2008). Education about condoms has little impact on girls' behaviors if they are unable to negotiate with sexual partners (Sayles et al., 2006). Individual-level interventions aimed at increasing condom self-efficacy may be helpful to establish early, consistent condom use, although interventions must also address interpersonal, family, and community factors that contribute to risk from older partners.

Unfortunately, fostering healthy sexual behavior is particularly difficult in the context of substance use. Alcohol use results in impaired judgment and is usually associated with high-risk sexual behaviors, which include unprotected sex (Fritz, Morojele, & Kalichman, 2010; Kalichman, Simbayi, Kaufman, Cain, & Jooste, 2007). Risk reduction counseling for adolescents who use alcohol excessively can address ways of minimizing risk for sexual activity and HIV. Efforts must incorporate a comprehensive approach including behavioral strategies (for instance, keeping condoms on hand or reducing exposure to social contexts that trigger drinking), substance abuse treatment programs, and policies that may reduce adolescents' access to alcohol.

A strength of the current study is the use of ecological systems theory to explore multiple levels of influence on adolescent HIV risk behavior. Consistent with this theory, associations in the current sample between risk behaviors and individual and interpersonal factors, as well as normative attitudes, indicate that multilevel interventions are best equipped to create lasting risk reduction. In addition to individual and interpersonal programs, community-level interventions within the ecological systems theory framework are needed to target norms that encourage intergenerational sexual

relationships, as well as broader sexual attitudes that contribute to HIV risk. Misconceptions about condoms can discourage their use (Selikow, Ahmed, Flisher, Mathews, & Mukoma, 2009). Further exploration of community values and norms that contribute to permissive sexual attitudes and negative beliefs about condom use is needed.

Contrary to expectations, psychosocial and family level factors such as mental health and parent–adolescent communication were not significant predictors of sexual activity and condom use. A number of predictors such as low self-esteem, partner violence, and forced sex were significant at the univariate level but were not significant in the multivariate model. Given prior research showing that depression (Nduna et al., 2010) and traumatic stress (Kalichman, Gore-Felton, Benotsch, Cage, & Rompa, 2004) were associated with increased risk behaviors in South African men and women, these findings are surprising. Exploration of potential mediators is warranted. The impact of mental health may be particularly pronounced for highest-risk adolescents or those with poor parent support. Additionally, given gender differences in predictors of risk behaviors, it is likely that multilevel influences on sexual activity and condom use may differ for male and female adolescents. Differences in gender and relationship norms, for example, may explain why age of sexual partner significantly predicts condom use for females but not males.

Limitations

Limitations of the study include the cross-sectional design, which allowed us to determine correlates of sexual activity and condom use but not causal relationships. Data were based on self-reports and the interview-administered method, which is subject to response bias. In some instances, sexual behaviors may be underreported or exaggerated due to interviewer administration.

IMPLICATIONS AND FUTURE DIRECTIONS

Reaching a more complete understanding of the interaction of ecological factors contributing to sexual risk behaviors in South African adolescents will enable the development of interventions tailored to those in greatest need. Further research is required to test various counseling interventions that apply multiple levels of risk assessments and tailored counseling. The findings of this study will be used to adapt an HIV risk reduction counseling intervention for adolescents in Soweto by incorporating multiple levels of influence.

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Appendix S: Training Protocol for Adapted CDC Risk Reduction Counselling Intervention

Adapted CDC Risk Reduction Counselling Intervention Protocol	
Protocol Component	**Time-Minutes**
Introduction/establish rapport	2
Sharing information on HIV	5
Enhancing participant's self-perception of risk	5
Review previous risk reduction experiences	5
Negotiation of risk reduction plan	6
Condom skills demonstration and practice	10
Identify sources of support and provide additional referrals	5
Total Time	**38-40**

NOTE: QUOTES ARE INCLUDED AS A GUIDE FOR HOW THE COUNSELLOR COULD DELIVER THE INTERVENTION AND DOES NOT HAVE BE STATED VERBATIM. COUNSELLORS MAY PHRASE THEM IN THEIR OWN WORDS.

Introduction / Establish Rapport

Goal 1: ***To establish the parameters of the session, describe the roles and responsibilities of the participant and the study staff and establish consensus with the participant as to the objectives of the intervention session.***

To establish initial rapport with the adolescent participant, the counsellor will have to convey positive regard, genuine concern and an empathic response toward the participant. The counsellor must be professional and respectful toward the participant and recognise that issues of family conflicts, sex and drug use behaviours may be sensitive and difficult for the participant to discuss. The adolescent participant should be helped to feel comfortable with the intervention procedures, understand the purposes of the HIV prevention study and be clear about the content and purpose of the session. This clear delineation of the session serves to model for the participant a rational and responsible approach to addressing the challenging issues of understanding risk and implementing behaviour change. The counsellor should convey confidence in being able to understand the participant's social context and risk and in the participant's ability to initiate a process that will minimise the risk an adolescent faces or maintain low risk in his/her life. In this component of the session, the study staff should establish the collaborative nature of the session and the process and empower the adolescent to find ways to minimise risk/maintain low risk in his/her life.

Introduce yourself to the participant

Say: "Hello, my name is _____. I'll be talking with you today about behaviours that increase your chances of HIV infection."

Explain role of counsellor

Say: "I am here to work with you to identify situations in your life that may put you at risk for HIV."

Indicate the duration of the session

Say: "We'll talk together for about 30 to 40 minutes. What we talk about today will be kept confidential. This means that everything that we talk about will not be shared with other people outside this study, without your permission. I will not tell your parents or your friends about what you tell me in the session today. Please remember that if you tell me any information indicating that you are being abused or have the intention of posing danger to yourself or others, I will be required to tell the appropriate authorities."

Outline content of session

Say: "Let me tell you what we'll be talking about. We will talk about HIV and possible situations that may put you at risk for HIV. I will work with you to find ways to make you sure you maintain a low risk or reduce your risk by talking about changes you can make to further reduce your risk. You will leave this session with a risk reduction plan that will help with your particular circumstances."

Referrals

Say: "Should there be issues we cannot address here, I would like you to allow me to refer you to people or organisations who may further assist you."

Address immediate questions and concerns

Say: "Before we continue, do you have any concerns or questions you would like to talk about?"

Sharing information on HIV

Goal 2: ***To engage the participant in exploring information about HIV. This session allows the counsellor an opportunity to provide the participant with accurate information and to correct misperceptions/myths about HIV.***
The information component of the session should **predominantly be didactic** such that information regarding HIV is shared with the participant. The counsellor will engage the participant in the discussion of information about modes of HIV transmission and preventative strategies crucial in reducing risks of HIV infections. This process is intended to encourage the participant to articulate his/her attitudes and beliefs about HIV risk behaviour. During this part of the session, the counsellor aims to educate and to clarify misinformation for the participant, as considered necessary.

Start the session by asking the participant to tell you a little about him/herself. Thank the participant for sharing and move into a discussion about HIV.

Ask: "Tell me a little about yourself so I can know you better?"
"Tell me about your dreams or goals for the future."

Ask: What have you heard about HIV?
Let participant explain and then correct or confirm information.

Myths and misconceptions
Ask the participant if he/she has seen or heard anything that is not true about how HIV is transmitted. If the participant cannot offer any ideas, provide examples and ask if he/she has heard about them.

Say: "Some people believe that you cannot get HIV the first time you have sex? OR "Some people say condoms should only be used during the first and second round (sexual acts) because there is less fluid in the ejaculation after the second round, which means less risk for HIV. Have you ever heard of that? What is your take on that?"

When you have sex with someone – (you clarify whatever the participant did not get right)

The purpose is to inform the participant about HIV transmission.
Say: "HIV is mainly transmitted through sex. A condom is an effective way to prevent becoming infected with HIV. Did you know that many people your age are starting to use condoms each time they have sex?"

You can only get HIV from - (you clarify whatever the participant did not get right)

The goal here is to let the participant know that fluids from the vagina or from ejaculation can transmit HIV. The participant should also be informed about transmission via blood and that some adolescents may have acquired HIV from their mothers, or from being forced to have sex through child abuse or rape.

Say: "Most people get HIV from having unprotected sex. You can also get HIV through contaminated blood and sharing needles or from mother to child transmission."

Enhancing participant's self-perception of risk

Goal 3: ***To engage the participant in a discussion about his/her risk for HIV. The purpose is to focus the participant's attention to situations that may put him/her at risk, to increase his/her level of concern regarding these risk situations, and to enhance the participant's self-perception of risk or risk situations.***

Help the participant recognise behaviours and situations that might place him/her at risk. Based on the socio-behavioural risk assessment, identify (with the participant) the categories and range of behaviours that place the participant at risk for HIV while attempting to focus the participant on specific behaviours, situations (related to family, school, community, peers and intra-personal factors such as self-esteem, depression, self-efficacy) and sexual encounters that contribute to his/her risk. Establish an atmosphere that conveys a collaborative and creative exploration of the relevant issues. Note that the participant at this point may not identify behaviours and situations as being risky. At this stage the counsellor can probe or discussion risk behaviours and or situations that are shown to be risks on the socio-behavioural risk assessment.

Create risk profile
Based on what you have discussed with the participant, engage the participant in a discussion about the specific behaviours or contextual factors that may put him/her at risk. While discussing the risks, identify and reinforce efforts initiated by the participant to reduce his/her risks.

Remember to write this down in the table below.
Identify the risk
Ask the participant about some contextual factors that may affect his/her vulnerability to risk. These may include the following possible factors:

Intra-personal factors	**Inter-personal factors**
➢ **Mental health (Depression/ trauma/stressors)** Say: "Sometimes when people feel sad or depressed/put down by others, they do things that might put them at risk." Ask: "Has anything happened that is stressing you at the moment?" "Tell me about times when you do things that you don't necessarily want to, but you do them to please someone." "Are there times when you feel sad or down and do things to feel better? Tell me what do you do when you feel sad or down." ➢ **Alcohol and drug use** Say: "The use of alcohol or other drugs is often linked to behaviours that can put people at risk for HIV. When people are a little high or drunk, it can be harder for them to refuse sex or negotiate condom use. It would be helpful if you could tell me about your own substance use, especially whether you drink or use drugs and whether you drink and use drugs when you have sex." Ask: "Can you tell me a little about your experience with drugs or alcohol? "Who were you with when you drank	➢ **Family/home situation** Ask: "Tell me about your family. When do you spend time with your family? Do you like spending time at home? Who looks after you when you are not in school? How often are you left alone at home? With whom do you talk about sex and HIV in your family?" ➢ **School** Ask: "Tell me how you get to school every day. How safe do you feel at school? Do teachers supervise the play area, toilets and gates? Are there teachers dating boys/girls at your school?" What is stressful about school? ➢ **Community environment** Ask: "Tell me about the area where you live. Are there times when you don't feel safe in the area where you live?" ➢ **Peer influences** Ask: "Tell me about your friends. What do you and your friends get up to when you hang out? Do you ever go to parties with your friends? What happens when you are at the party? What do your friends think about sex? Do you talk to your friends about HIV concerns? What do you talk about HIV?"

alcohol?" - Was it with your friends? - Someone you just met? "Where were you when you drank alcohol? (At a party, your boyfriends' house, friend's house, club, at the mall) "Did you want to drink alcohol or you just went along with your friends to keep them happy?	➢ **Romantic relationships** Ask: "Tell me about your boyfriend/girlfriend. What do you like and don't like about him/her? What do you do when you are together? What do you do when you want to be intimate with your boyfriend/girlfriend? What do you talk about with your boyfriend/girlfriend?"

Identify previous risk reduction experiences

Ask: **"**What are you presently doing to make sure that how you feel or what is happening to you does not put you at risk for HIV?" Are there times when you feel that it has been difficult for you to avoid putting yourself at risk?

	Attempts to reduce risk	Obstacles
Stressful events		
Family/home situation		
School/peers		
Romantic relationships		
Substance use		
Community		

FOR SEXUALLY ACTIVE PARTICIPANTS

If the participant is sexually active, help the participant recognise specific sexual behaviours that place him/her at risk for HIV. Focus on the participant's specific sexual behaviour(s) and the circumstances that affect that behaviour.

Assess participant's sexual risk behaviours

Say: "Since some sexual activities can increase the risk of HIV transmission, I am wondering if you can tell me what kind of sex you have. Who do you have sex with? Can you tell me if your partners are men, women or both?"

Ask: "Is there anything that you have done that you think may put you at risk for HIV infection?"
"When you have unprotected sex (i.e. penetrative sex without a condom), have you thought you may be exposing yourself to risk?"

Assess communication of HIV concerns with partner(s) (This section is for all participants even if they do not have a partner at the present)

The process of exploring how participants talk to their partners can be an important part of creating a realistic risk-reduction step. Assess their abilities to negotiate with their partners.

Say: "I'm wondering whether you discuss sex, pregnancy and HIV with your partner(s)."
Ask: "What kinds of conversations have you had with your partner(s) about HIV?
How do you decide to have sex with someone?
Do you know the name of your sexual partners? Are they older than you? How many times do you have sex per episode (day or night?) Do you share sex with your girlfriends/ boyfriends friends?" (For sexually active only)
"Do you or your partner(s) suggest using condoms when you have sex? Do you have condoms on you in case you will have sex?"
Those who have partners but are not sexually active can still be asked about discussion re: condom use at sexual debut.
Ask: "Do you know whether your partner(s) has/have been tested for HIV? Would you have engaged in sex/will you engage in sex had you known/if you know this person had/has HIV?"

Discuss the specifics of the most recent risk incident by exploring context: the who, what, where, when and how of what happened

Ask the participant to describe a risky situation that he/she engaged in the last time he/she had sex. The more information you get, the more personally tailored the intervention will be for the participant because you can talk about specific behaviours.

Say: "Tell me about one situation that you can think of where you were at risk for HIV."

Say: "Now that you could think back to a situation you described to me, let's see if we can identify what was going on in the situation."

Engage the participant into a discussion about their situation. Some of the questions below may be helpful

"Tell me about the person you had sex with?
- Was it someone you knew well and liked?
- Someone you just met?
- Someone you had sex with before?
- Someone especially attractive, aggressive, shy, older?"

"Where did the sex take place? (in your house, his/her house, at the mall, club)"
"Where did you meet him/her?"
"Why were you attracted to him/her?"
"What do you like most about this person?"
"Were you drinking or using drugs before or during sex? Do you think it influences who you choose to have sex with or the kind of sex you have?"
"Was your partner drinking or using drugs before or during sex?"
"What was your mood like just before sex? Were you feeling depressed, lonely and wanting to meet someone; were you angry or happy?"

Did you have condoms available? Could you use the condoms? Probe further…

SUMMARISE THE KEY ISSUES
It is important to summarise all the information the participant has provided. Retell the participant's story as clearly as possible, making connections between issues and situations and summarising the key issues identified by the participant. First, provide feedback about the participant's risk for HIV.

Say: "I appreciate all that you have told me today. From what you have told me, there have been some/a few/a couple/quite a few situations that may have put you at risk for HIV. I would like us to work together to see if there is anything you can do to make sure that your risk for HIV remains low/reduce your risk from now on. Here is how I understand your risks for HIV. Several things seem to have been going on in your life lately that affect your possible risks (**List issues you have learned from the participant**.)
"There are several issues that seem to affect your risk behaviour (**List specific issues previously raised by the participant). Talk about positive strategies that the participant may have been using.**

Ask: "Is this how you see your risk behaviour? Are there other issues that need to be talked about? Does this make sense to you?"

Note any pattern of risk behaviour and identify key triggers/vulnerabilities.

Say: "Let's look at how often these risk situations happen. Given what we have talked about, what do you think makes it most likely that you will put yourself at risk for HIV?"

Negotiation of Risk Reduction Plan
Goal 4: To develop a specific, concrete and incremental plan for the participant to reduce HIV in order to optimise the participant's ability to successfully implement the plan.

The risk reduction plan is a fundamental component of the risk reduction intervention session. The counsellor should assist the participant in identifying a behaviour that corresponds to his/her risk and that he/she is invested in changing. It is essential that the plan match the participant's skills and abilities with his/her motivation to change a specific behaviour. The counsellor should challenge the participant to go beyond what he/she has previously attempted in terms of risk reduction. The plan must be **specific** in that it describes the who, what, where, when and how of the risk reduction process. It must be **concrete** in that it details the successive actions required of the participant to implement and complete the risk reduction plan. Finally, it must be **incremental** in that it is directed at a single aspect of the risk behaviour or one particular factor/issue that contributes to that risk behaviour. The counsellor should avoid supporting risk reduction plans that involve unreasonable or radical changes in the participant's life. Global risk reduction messages such as "always wear condoms," or "abstain from sex" do not meet the criteria for an appropriate risk reduction plan. The counsellor should ensure that the participant agrees with the plan and is committed to its implementation. The participant should be asked to critique the plan and identify problems with the plan. The counsellor may even quiz the participant on the plan or provide plausible examples of obstacles the participant may encounter in initiating the plan. These obstacles should be problem-solved with the participant and may require revising the plan. The process of developing a plan represents the participant's movement toward risk reduction. The participant should be provided with encouragement and considerable support for participating the risk reduction session.

Prioritise a risk reduction step that is *realistic* and *do-able* for the participant
The counsellor helps the participant focus on reducing the risk/s they are willing to commit to changing.

Say: "Now that we have identified what risks are, we have come to the part where we need to work together to develop a plan to help you reduce your risks.

Ask: "What do you think you could reasonably do to maintain low risk/reduce your risk(s) related to family situation/school situation/peer influences/your relationship with your boyfriend/self-esteem/depression/trauma (etc)?"

If the participant is at a loss regarding how to reduce risk, offer suggestions

Say: "Here are some options that other participants have used …" Suggest some options. For example:

- Delay sexual debut further (primary abstinence)
- Begin to abstain (secondary)
- Have your partner tested as well
- Use condoms consistently and correctly
- Get your partner circumcised
- Encourage outercourse sex (masturbation, sex toys, etc)
- Avoid having sex when you have thrush or when the vagina/penis is sore
- Find an activity that will occupy your time to deal with stress
- Bring boyfriend/girlfriend along to your counselling session
- Test for HIV with your partner regularly
- Avoid spending time alone in a private place with your boyfriend/girlfriend
- Stay away from people (friends) who put you down or treat you badly
- Do things that you enjoy or that make you feel good

Discuss how the client will operationalise the plan, using specific and concrete steps

Say: "Now that you have identified something you would like to do, tell me how you feel you could go about making it happen? When do you think you can do this?"

Identify barriers to the risk reduction step

Ask: "How will you handle it if something gets in the way of your trying this step? What would be a good back-up plan?"

If appropriate, role-play the plan with the participant

Say: "Would you like to practice how you will handle this?"
"Imagine that I am [name the person]. What would you say? Let's switch roles."

Ask: "How comfortable are you with the plan? Does it seem realistic to you? How does it feel? If we need to, we can rework the plan."

Say: "You will really have done something good for yourself by trying out this plan. How committed are you to trying the plan?"
"Let's write down your plan so you will have a copy of the specific details."

Condom Skills Demonstration and Practice

Goal 6: This is an interactive exercise, with the goal of providing the client with as much experience as possible in handling and talking about condoms. In teaching condoms skills and providing information, first ask questions and let the client tell you what he/she knows before providing a demonstration yourself. Remember to have the condoms as well as penis and vagina models ready for the part of the counselling session. Demonstrate the male and female condoms to ALL participants.

For the male condom demonstration, if the client has used a condom before, the participant will put a condom on the penis model for the study staff to observe. If the participant has never used a condom, the study staff should demonstrate first. Then the client will repeat the exercise by him or herself.

Ask: "Have you ever used a condom before?" Did you know that many young people your age at now using condoms to prevent pregnancy and STIs like HIV.

Say: "Now we are going to do an exercise on how to put on a condom and you will put the condom the way you know or usually do. You may already know how to put on a condom, but you never know, you still might learn something new."

Give the participant a male condom to use for the demonstration.

Ask: "So, how would you put one on?"

Then take a condom and demonstrate for the participant.

Say: "This is a latex condom and it protects against HIV when used correctly and when used during the whole sexual act, every time you have sex."
"Condoms have an expiry date that tells you how long they are good for. Always check the expiry date as shown here [indicate on the condom]. Don't use condoms that have expired because they could break easily. Don't use condoms that have been exposed to heat such as the sun because that could damage the condom."

"Now we are going to open them. What works well is to move the condom aside to open the package. Do not use your teeth. And be careful not to tear the condom."

"Put it on like a little hat. Pinch the condom at the tip with one hand. Use the other hand to roll the condom all the way down to the base. Keep the condom the on the WHOLE time that you are having sex". Always use a new condom with each round of sex.

"NEVER REUSE a condom."

"After you have sex, be careful when you/your partner take/s the condom off. Be careful not to spill the contents. Throw them in the trash and not the toilet. So that is how you put on a male condom and you will get some to take home with you today."

For the female condom demonstration, the counsellor will show the client what the female condom looks like and how it is used using a the vaginal model.

Ask: "Have you ever used a female condom?"

Say: "They are actually a male/female condom or a shared condom. They look like this. They have two rings. This inner ring gets inserted into the vagina and fits over the cervix like a cap. The outer ring stays on the outside of the vagina and protects the opening. During sex, the penis inserts in and out of the sleeve. After you have sex, you need to twist the condom to keep the contents in. Then reach in and pull it out."

"Female condoms are good because they are not made out of latex. They are made out of a type of plastic that makes them transfer heat a lot better than a male condom. A lot of guys say that they like the female condom because they say they can feel their partner more."

Identify Sources of Support and Provide Additional Referrals
Goal 5: To identify resources that will enhance the participant's ability to reduce risk and implement the risk reduction plan.

This component of the session is intended to identify or develop for the participant peer and community support for HIV risk reduction, as well as to provide referral to professional services directed at addressing specific issues the participant may have identified. The priority of this component of the session is to identify a specific person with whom the participant will discuss his/her risk reduction plan and report to regarding the implementation and completion of the plan.

During the counselling session the counsellor or participant may identify a need for referrals to professional services (for example, alcohol and/or drug treatment, support groups, mental health counselling). Then the counsellor should be prepared to give specific provider names and phone numbers to the participant.

Ask: "Who in your life do you feel is supportive of you?"
"Is there someone you can talk to about your feelings and concerns?"

"Your plan seems like it could really work for you and we've talked about some important issues that may contribute to your risk for HIV. Do you feel it would be helpful to seek out professional help or other support with these issues?"

"Since we have talked about how this [drug/alcohol use/peer pressure] can affect and create behaviours that can open a door to HIV, have you considered getting assistance in dealing with this?"

"How interested would you be in getting a referral for services to deal with this issue?"
"What would be the hardest thing about seeking support for [**name the issue/s**]?"

Let the participant know you have confidence in their ability to complete the plan.
Say: "When you try this plan, think about what feels good, what works for you and which parts are hard or uncomfortable. Remember that trying to do something differently is sometimes awkward, but it gets easier with practice. Changing behaviour takes time and practice. Be patient with yourself. This is a good plan you've come up with. And I think it's something you can do. Remember to revise the plan if you need to in order to make it work better for you. Thanks for speaking with me today and sharing intimate information.

The counsellor should ask if the participant has any questions, then give him/her any relevant pamphlets (referral list, brochure).

End of session